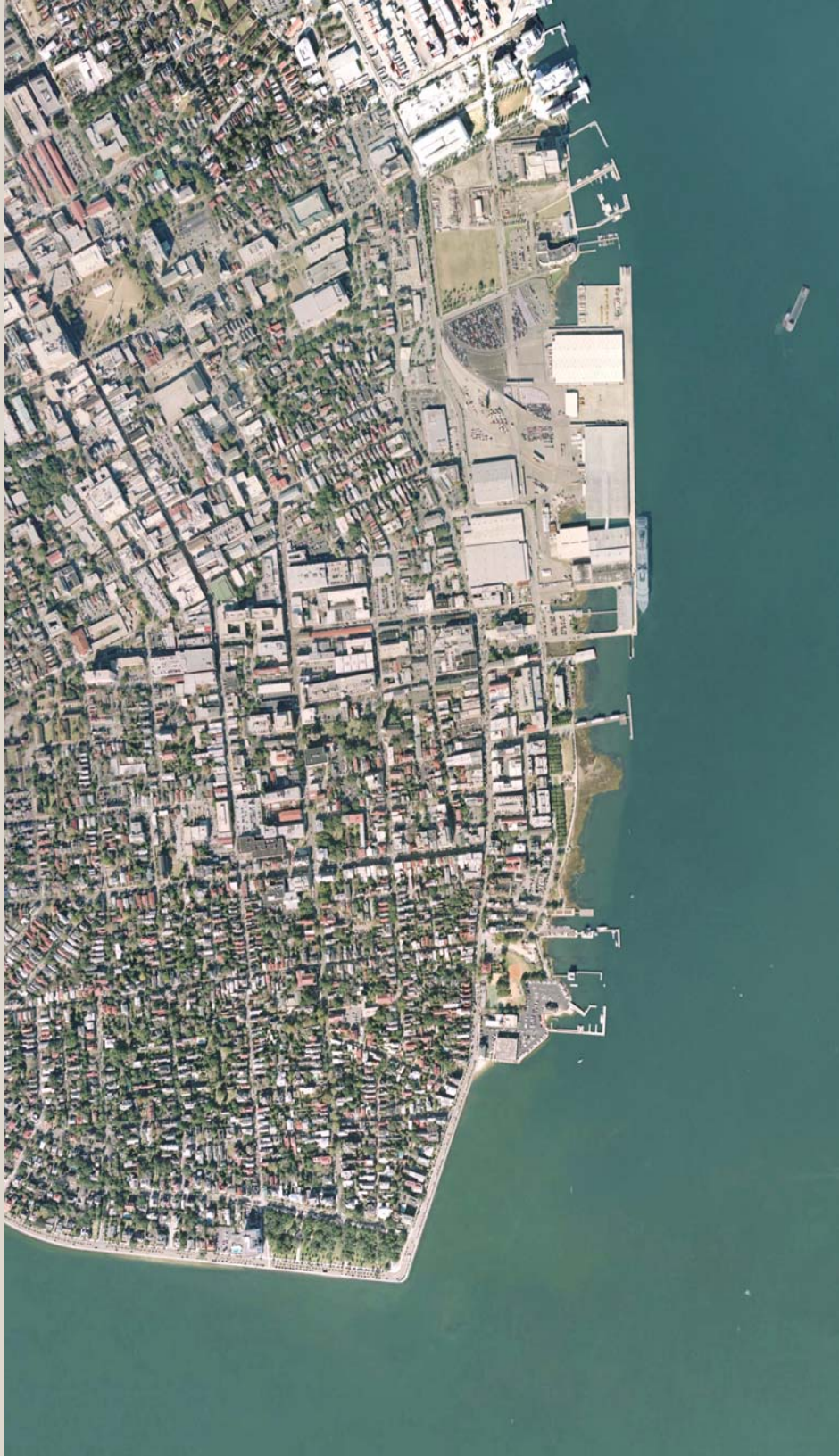
SOUTH CAROLINA STATE PORTS AUTHORITY

CONCEPT PLAN FOR UNION PIER WATERFRONT • SEPTEMBER 2010

Cooper, Robertson & Partners *Architecture, Urban Design*



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Submitted to the South Carolina State Ports Authority Port of Charleston

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UNITED STATES CUSTOM HOUSE

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EXECUTIVE SUMMARY

In the Concept Plan team's written response to the South Carolina State Ports Authority (SCSPA or Port) RFP, we put forward that a Concept Plan for the Union Pier Waterfront would require four different but interconnected plans:

- A Concept Plan (Revision of the 1996 Plan)
- A Cruise Terminal Plan
- A Business Plan
- A Community Outreach Plan

We also recognized that while the SCSPA is our formal client for this study, two entities, the SCSPA, the state entity that owns the property, and the City, the municipality in which the property is situated, shared a vital interest in any Concept Plan proposal. In addition, the citizens of Charleston are a significant stakeholder and would be involved and listened to throughout the planning process. The current proposal has been developed in light of this concern and reflects our commitment to an open and iterative work process. From the start we have attempted to work closely with and meet the needs and interests of both the Port and the City while seeking out, carefully listening, and responding to what we heard from Charleston's various interest groups and individual citizens.

What follows is a summary of our planning goals and assumptions, what we heard, and absorbed, and our resulting recommendations. We and our consultants would like to thank the CEO of the Port, James Newsome, and Major Joseph Riley and their respective staffs for their leadership, cooperative support, and sound judgment during the planning process. All good projects start with good clients which we have had. We believe these proposals are sound and will serve the long-term interests of the Port, the City, and the citizens of Charleston.

GOALS

- Create a financially viable plan including a new cruise terminal that is attractive and in keeping with the character of historic Charleston
- Comply with today's enhanced cruise security requirements
- Mitigate impacts on existing infrastructure and traffic
- Identify additional uses for the Union Pier property that bring enjoyment to Charlestonians and enhance the local economy
- Increase public access to Charleston's historic waterfront

PUBLIC INPUT

We've Heard People Want:

- A more attractive cruise terminal.
- More public access to the waterfront.
- Additional uses for the Union Pier property.
- A plan to address traffic issues.
- A plan that is contextual.

SCSPA CEO Jim Newsome discusses planning efforts for Union Pier with local residents.
Kick-off Meeting - October 8, 2009

PLAN VARIABLES

- Cruise Terminal location and layout
- Site Access/Circulation
- Future development

PLAN ASSUMPTIONS

FINANCIAL VIABILITY

- Plan must balance the economic development mission of the SCSPA

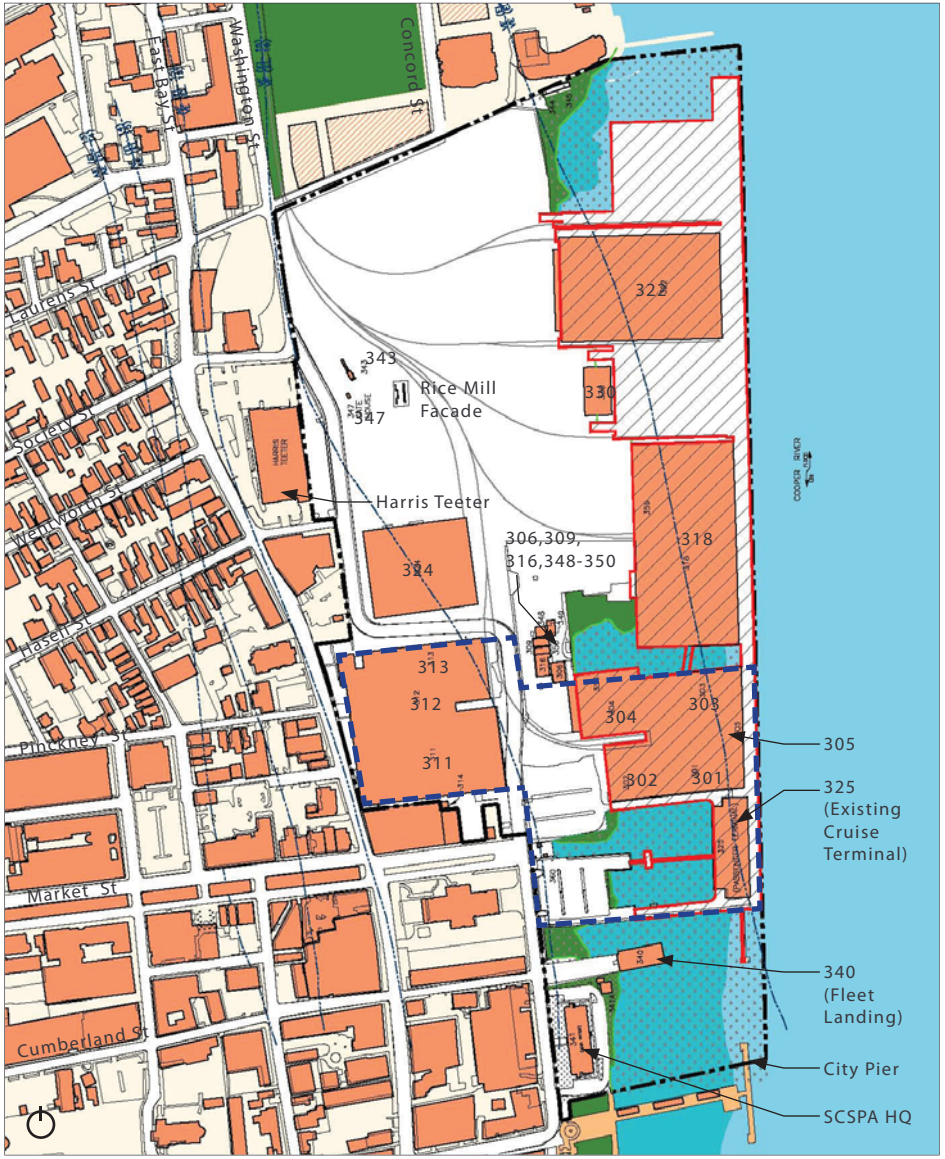
CRUISE TERMINAL

- Identify optimal cruise terminal location within the site of Union Pier
- Accommodate cruise passenger pick-up and drop-off within Port property
- Accommodate cruise parking and circulation to, through, and around the terminal site
- Allow public access to cruise terminal and adjacent waterfront on non-cruise days

POTENTIAL ADDITIONAL USES

- Residential
- Commercial (retail and office)
- Hotel
- Institutional
- Parking
- Public Parks/Playgrounds

PUBLIC ACCESS TO THE HISTORIC WATERFRONT



Existing Conditions

Portion of Union Pier currently utilized for Cruise Facilities

EXECUTIVE SUMMARY

RECOMMENDATIONS

- **Cruise Terminal Location & Layout**
  The Cruise Terminal should relocate to the northern end of Union Pier where the terminal can be accommodated in Building 322 and where the parking can be accommodated at grade, and the Ground Transportation Area (GTA) and service areas can be located adjacent to the terminal building.

- **Revised access/circulation/transportation systems**
  Concord Street should be added back to the City's grid; Washington and East Bay Street should act as a couplet from Chapel Street to Pinckney Street; and the intersections of Washington Street and East Bay Street at Pinckney Street, and Washington Street and Chapel Street should be improved for ease of use.

- **Creation of historic landing at east end of Market Street**
  The historic public landing at the Custom House should be restored to reveal the granite slips. Along with improvements at the east end of Market Street, a public plaza at the foot of the Custom House should be created to provide an appropriate front door to Charleston.

- **Conceptual Plan for developable land, streets, parks, public open space**
  Those portions of Union Pier Terminal currently used for Cruise Terminal and cargo business should be made available for private development and public infrastructure once they have been relocated.

- **Phased redevelopment of SPA buildings and decks outside of Cruise Terminal District**
  Redevelopment of existing port facilities, including buildings and deck area, should be phased to allow interim use of the site once current uses are relocated.

- **Coordination of City infrastructure improvements**
  The construction of new streets and open spaces as well as the improvements at Concord Street should be coordinated with the City's planned infrastructure improvements, including the Market Street Drainage Project and the Washington and East Bay Street improvements.

- **Potential for phased reestablishment of natural waterfront**
  The reestablishment of a natural waterfront should be phased to coordinate with the construction of the public access to the Cooper River.

- **Creation of a vibrant, mixed-use waterfront neighborhood**

- **Honor the history of Charleston's waterfront through civic uses**

- **Extend existing city streets to the water's edge to facilitate views and connections from historic neighborhoods to the waterfront**

Existing Conditions

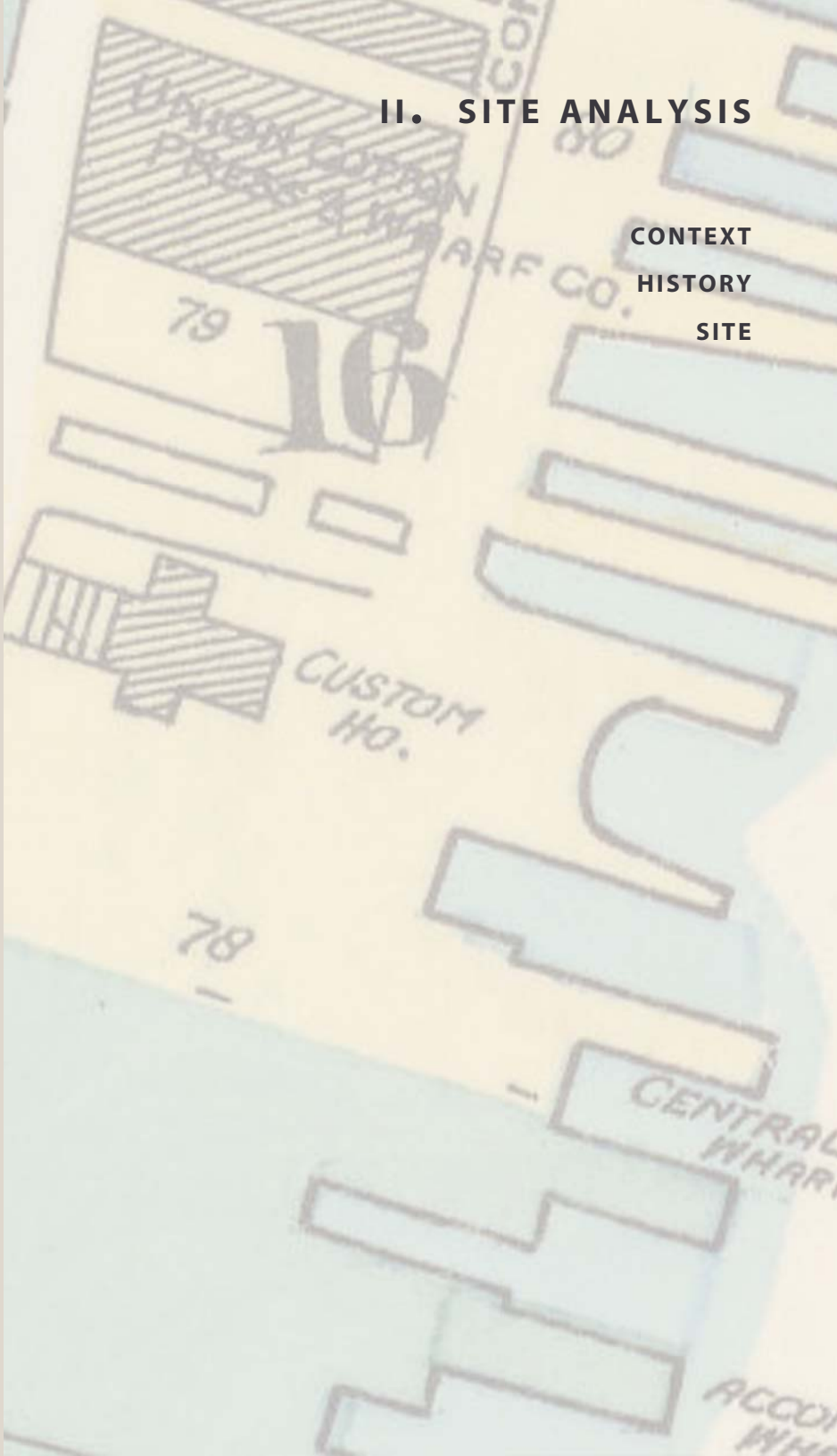
Concept Plan for Union Pier Waterfront - an illustrative concept

II. SITE ANALYSIS

CONTEXT

HISTORY

SITE



CONTEXT

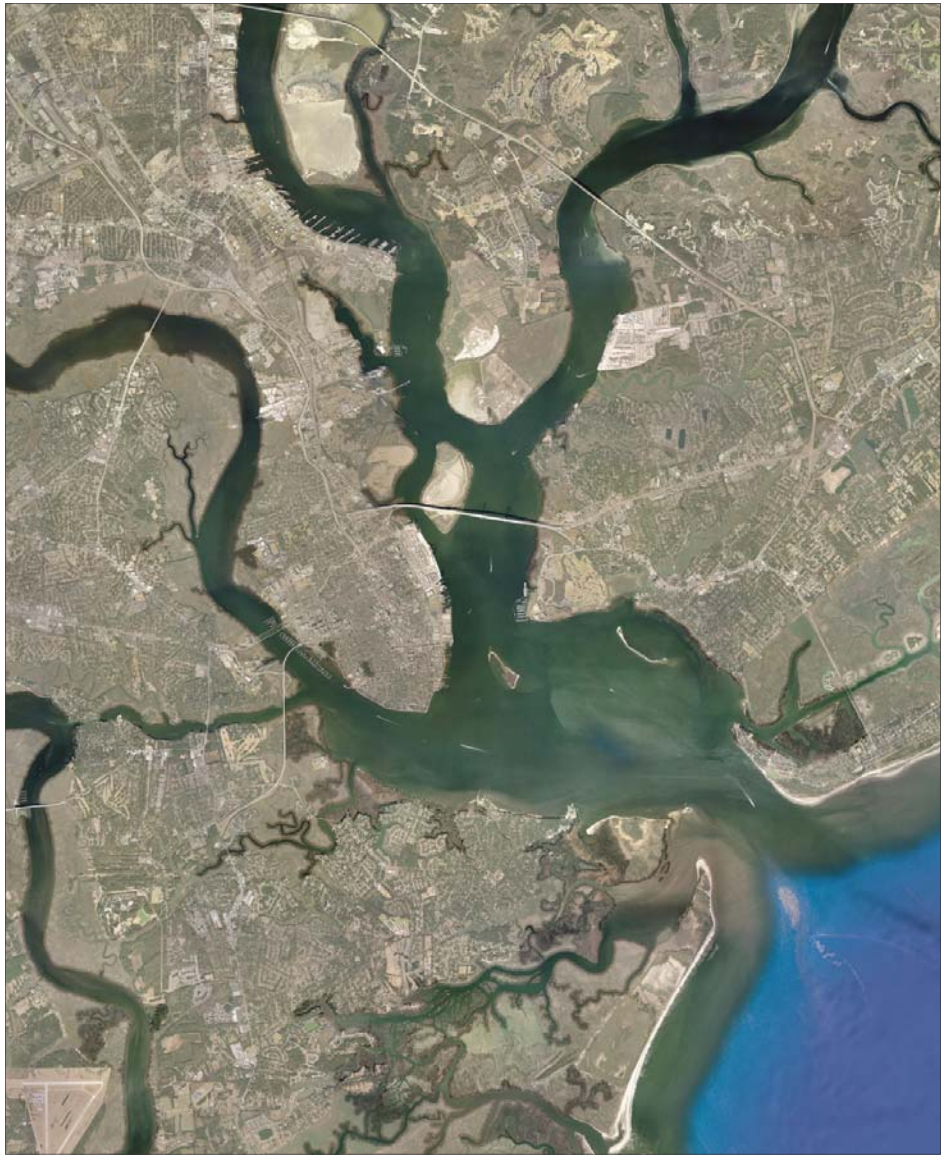
REGIONAL CONTEXT

The City of Charleston enjoys its place at the center of a diverse and storied region that typifies what is meant by the Lowcountry. Encompassing a vast array of preserved forests, marshlands and meandering rivers, stunningly beautiful beaches, historic plantation properties, charming agrarian communities, and diverse towns and cities, the Charleston Region is abundant with some of our nation's best examples of historic sites, cultural offerings, regional craft, cuisine, and architecture. Not surprisingly, Charleston is the fastest growing city in South Carolina, as visitors from across the country have succumbed to its charms to settle here, and its urban area is the most populous in the state.

Much of Charleston's historical importance and wealth was derived from its position as a "great port towne," as its Lord Proprietor, Anthony Ashley-Cooper, destined it to become. Charles Towne soon became a bustling center of trade and commerce as the fourth largest port in the colonies, after Boston, New York, and Philadelphia. And still today, Port activity is second only to tourism as the leading source of revenue for Charleston.

Downtown Charleston

Downtown Charleston



Charleston region

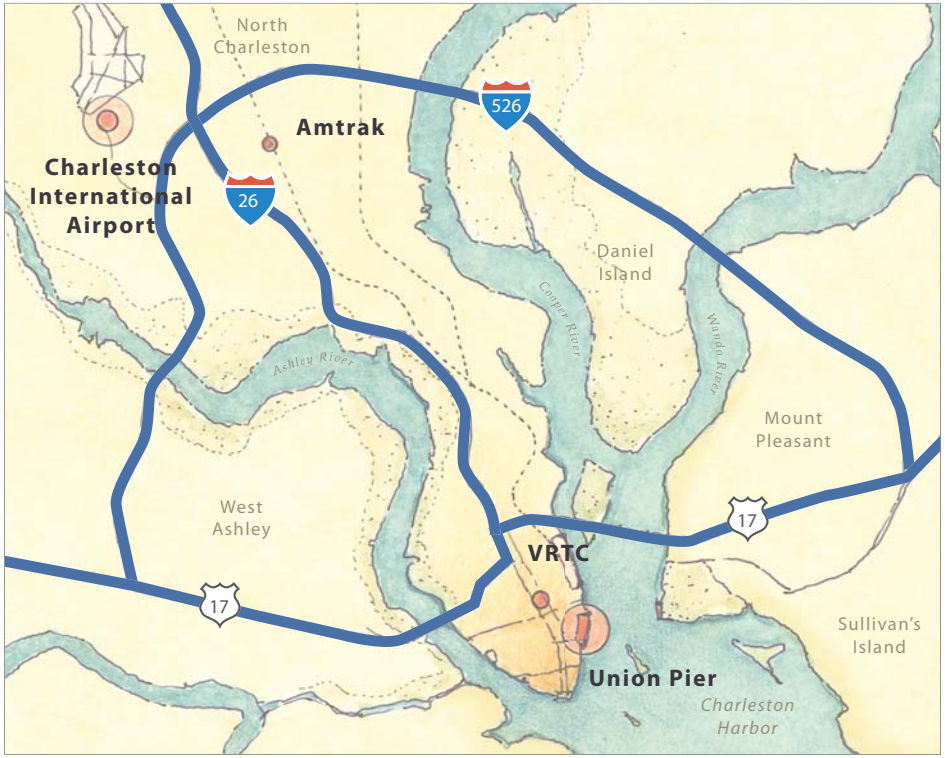
ENTRY POINTS TO THE PENINSULA

At one time, arrival by boat was the primary access to Charleston. Today, it is largely a drive-to destination and is well served by a network of interstate and US highways that form a framework around the region. Interstate 26 and US Highway 17 intersect at the Peninsula and connect the region to Interstate 95 to the north and west. Interstate 526 forms a loop around the urban center, connecting West Ashley, North Charleston, Daniel Island, and Mount Pleasant. Visitors by automobile often begin their tour of Charleston at the Visitor Reception and Transportation Center (VRTC), once an historic rail shed, where they can learn about the city's history and board motor coaches to tour the city's many attractions. Often the first impression for a visitor, Charleston's VRTC employs an architecture that is reflective of the history and richness of this great port city. The VRTC also serves as a venue for events attended by residents of the city.

Charleston International Airport serves the region's air traffic and is the state's busiest passenger airport. The region is also served by rail with an Amtrak station located in North Charleston. Charleston Station is served by trains that complete routes from New York to Savannah and New York to Miami.

Charleston's Cruise Terminal is also one of the many ways tourists arrive in Charleston. As a port of call, tourists from other locales are offered the opportunity to explore Charleston's sites and enjoy its offerings from their cruise ship as a home base. Home port ships, on the other hand, begin and end their voyage at Charleston's Terminal.

The building of a new cruise terminal in Charleston will provide an opportunity, as at the VRTC, to create a setting that reflects the character of Charleston and the history of the Port. Also, as with the VRTC, many of Charleston's residents have expressed an interest in a new terminal that could serve as a venue for events and increase public access to the waterfront.



Access to the Peninsula

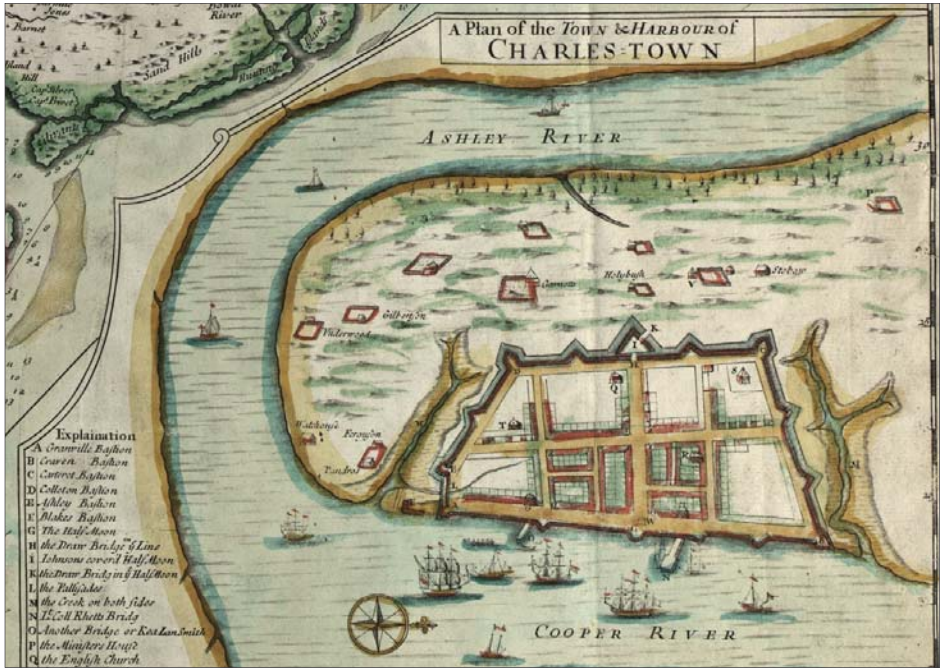
VRTC

VRTC

CONTEXT

PENINSULA

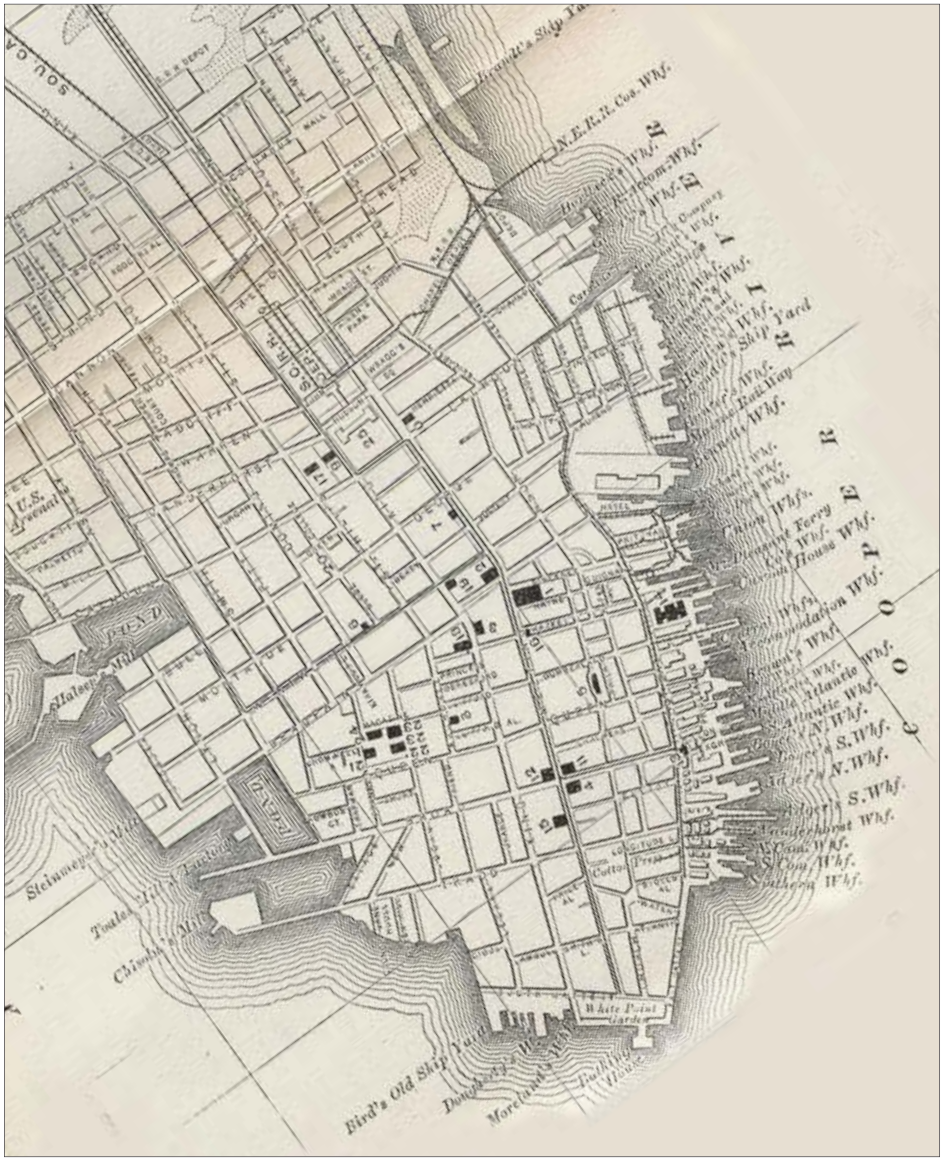
The Charleston Peninsula is formed by the confluence of the Ashley and the Cooper Rivers. Charles Towne was founded in 1670 on the west bank of the Ashley River, but soon moved to its present location along the Cooper River. A walled city arose on higher ground along the shoreline with its waterfront dominated by the port. Today, much of the original peninsula is skirted by lower land created from landfill. A chronological inspection of historic maps of Charleston illustrates an ongoing outward growth of the city's shoreline into areas formerly marsh, mud, or even water. As a result, much of Charleston's historic urban fabric is upland of its waterfront, with the exception of the Battery. Waterfront land is often held in large tracts of ownership, either by the city, the state, or by institutions, typically limiting or precluding access by the public.



Charles Towne circa 1711

Aerial image of Charleston Peninsula with the "Urban Fabric Boundary" and the Union Pier Terminal indicated

Historic map circa 1780



Historic map circa 1885

CONTEXT

PENINSULA EDGES AND WATER VIEWS

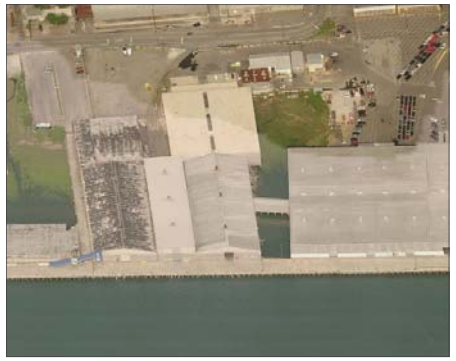
As a result of historic patterns of development and land accretion, the edges of the Peninsula vary from natural marsh edges, typically north of US 17, to urban edges along the Battery and along newer waterfront developments, to industrial edges in the areas controlled by the Port, notably Union Pier Terminal and the Columbus Street Terminal.

As a consequence of these edge conditions, waterfront views are either facilitated by street corridors and opens spaces, as along the Battery and in areas north of the historic district along marsh edges, or restricted or precluded by larger users, such as the Port terminals and the MUSC campus. A concept plan that includes new uses at Union Pier can transform an area with restricted views and access of the water to one that celebrates the waterfront.

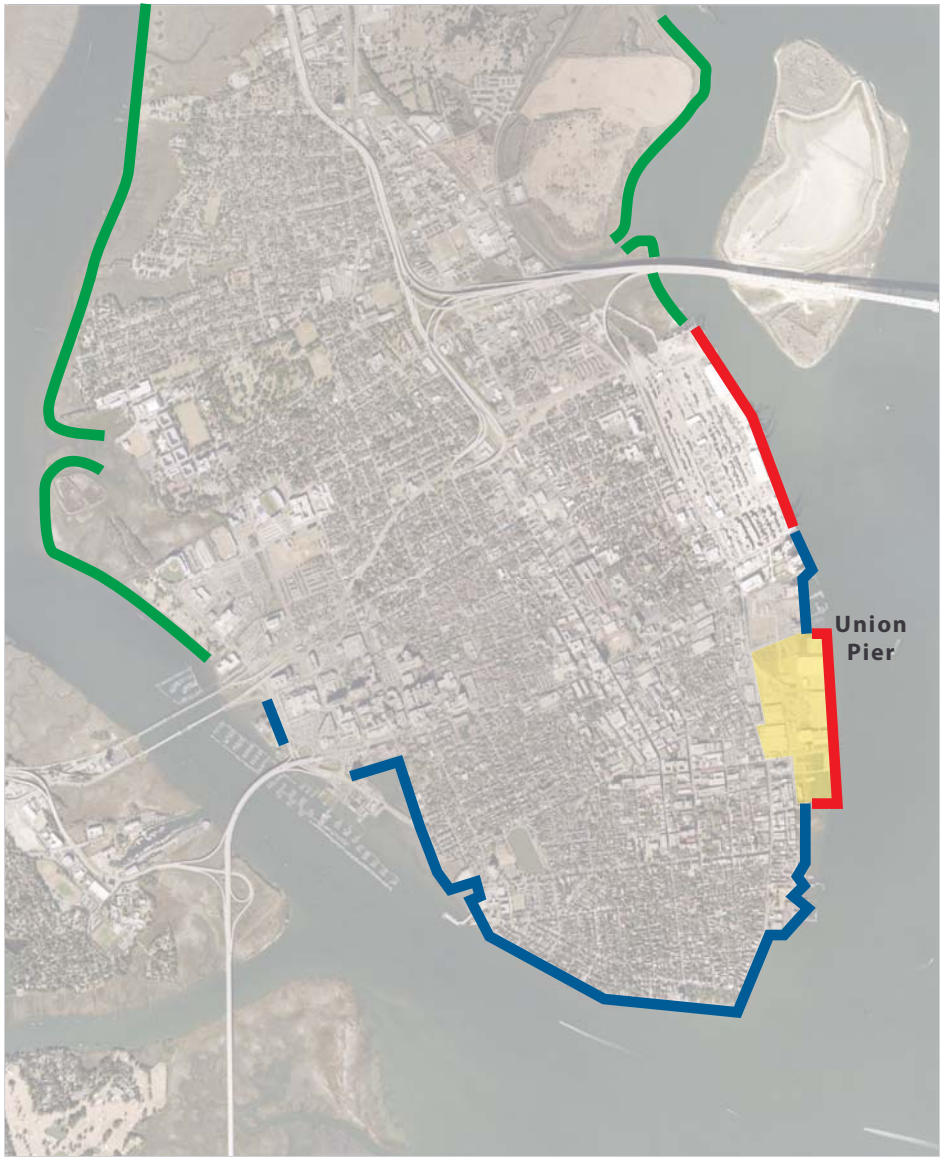
Charleston's natural edge

Charleston's urban edge

Charleston's urban edge at Waterfront Park

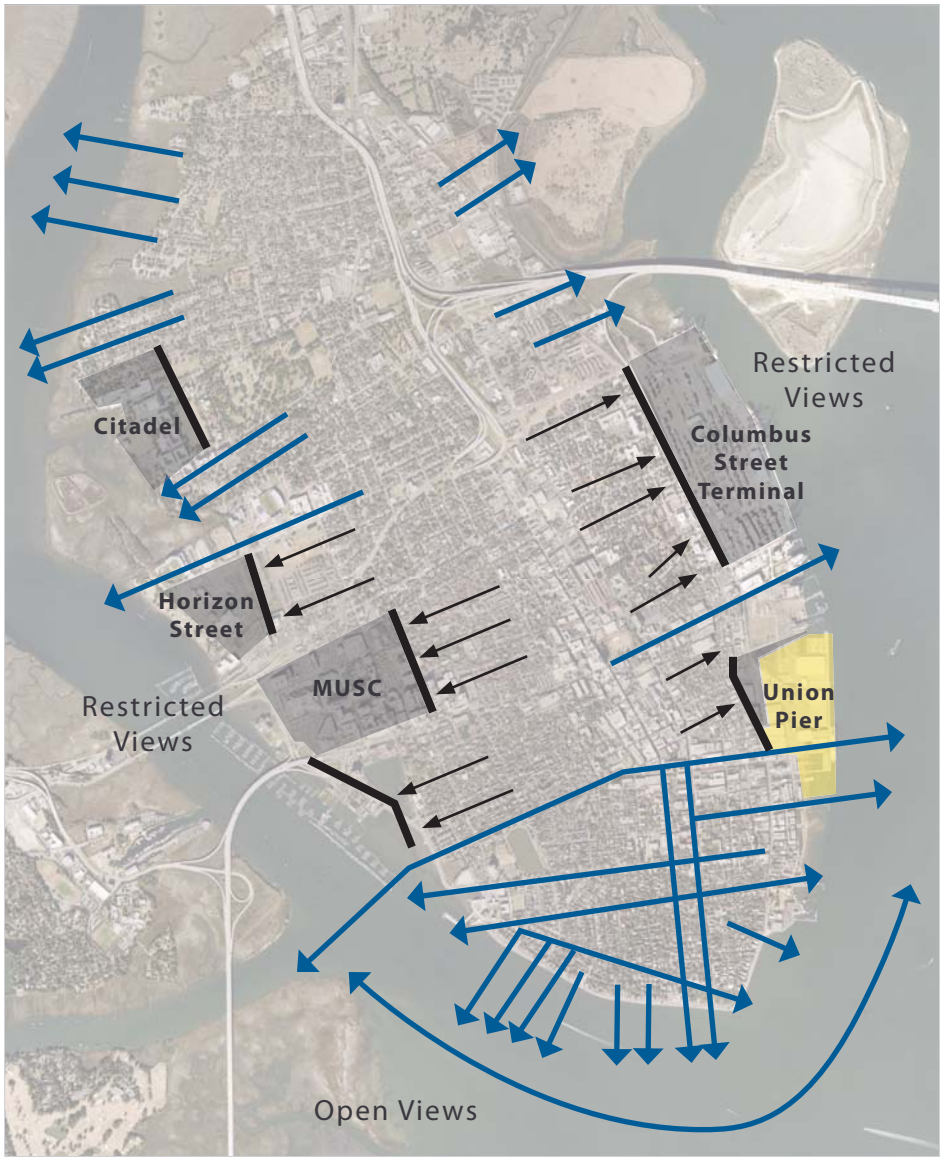


Charleston's industrial edge at Union Pier



Peninsula edges

Natural edge Industrial edge Urban edge



Water views

CONTEXT

NEIGHBORHOOD

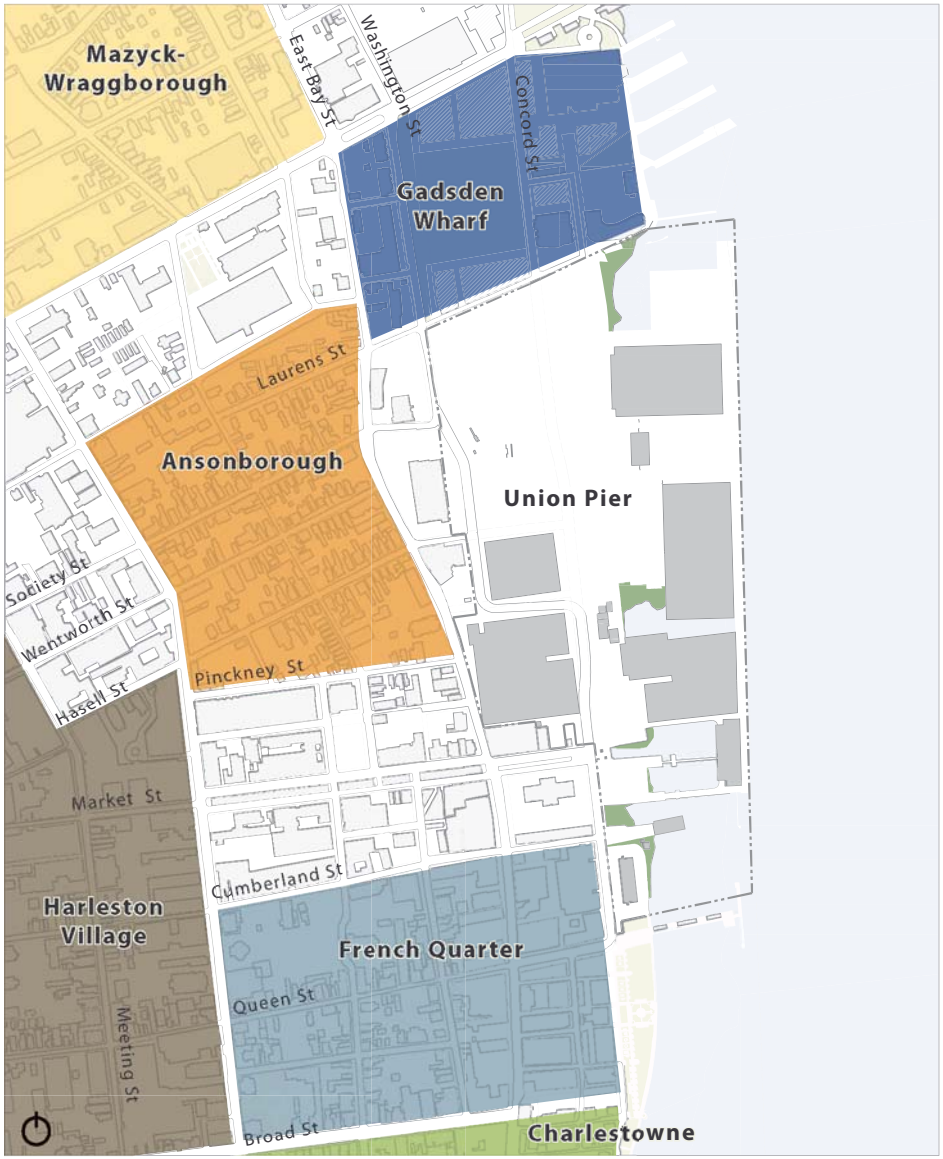
Sites along waterfronts are almost always considered valuable. As if its waterfront location weren't enough of a draw, Union Pier Terminal is a rare find in America cities as a large, active industrial site poised for redevelopment and adjacent to some of the most cherished, historically important, and valued neighborhoods.

Situated to the north of the original walled city, Union Pier is today in the center of Charleston's historic waterfront, where it was once its edge. Market Street, originally a drainage way and later filled, connects Union Pier's waterfront to the city's core, a reflection of when goods arrived on boats and were traded or sold in the historic sheds. Today, the market sheds house vendors of regional craft and food, making the location a visitor hot spot. Recently under new management, the City Market is poised for a renaissance.

The French Quarter to the south, a remnant of the walled city, is typified by street upon street of historically significant architecture and dominated by the spire of St. Phillip's Church, which commands Church Street to deflect around its portico. Over the last twenty years, the French Quarter's waterfront has been revived by the creation of Waterfront Park, adjacent to Union Pier's southern boundary.

Similar in charm to the French Quarter, the tree-canopied neighborhood of Ansonborough is Union Pier's western neighbor. To the north, the neighborhood of Gadsden Wharf contains the emerging Concord Park development, formerly known as Ansonborough Fields, and is the site for the South Carolina Aquarium and the Charleston Maritime Center.

Neighborhoods are typically edged by or centered upon one of Charleston's primary streets. These streets, more than public open spaces, form the primary public experience, or public realm, that characterizes Charleston. The primary streets often have their own identity, stemming from the uses and activities that line them. Within the immediate vicinity of the Union Pier site are several of the city's most important streets. Union Pier Terminal is poised to connect to this cherished public realm through new street connections.



Adjacent neighborhoods

Street character

HISTORY

HISTORIC WATERFRONT

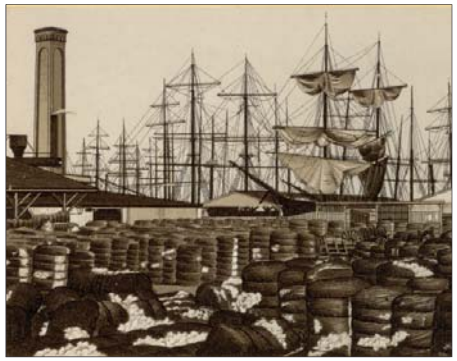
The rich and varied history of Charleston has been significantly shaped by the history of its harbor and its port. All maps and written accounts attest to this maritime focus. The Peninsula's eastern marshy shore, where land and water meet, was from the start a place of great and constantly changing activity which involved many of the city's most prominent names. Here wharves, piers, landings, storage areas, and warehouses vied for a waterfront site in which to load, unload, and process. The trade in indigo, rice, cotton, and naval stores as well as slaves account for much of the city's wealth, which over time resulted in the creation of some of our country's most beautiful public and private buildings, from churches and courthouses to private houses and gardens. This sophisticated urban setting became Charleston's hallmark. The working waterfront remained a driving commercial force which required continuous change in order to meet new needs, ship and cargo types, and required equipment from the 17th century to now. Oddly in a city which became obsessed with the history and preservation of old buildings, there was little interest in saving what was built on the waterfront. That was a place that had to do with business, where change was necessary to economic survival. The city's monopoly board had to be redone to continue to play the game of maritime money. At one time or another, what was land had become water and vice versa to this end. The only sure thing was that the waterfront remained a place of commerce and activity which continued to help support the city.

Today the Union Pier is due to have yet another change in its character, one which combines a new cruise ship terminal with real estate development and public access to the waterfront giving the city a new and valuable relationship to its history-making harbor. At the eastern end of Market Street, the granite lined landing on axis with the Custom House, now covered over with a parking lot, will be restored. The city will regain its formal front door to the ocean - a long overdue acknowledgement of the port's role in Charleston's ongoing success.

Mosquito Fleet daily landing

Public Landing - early 20th century

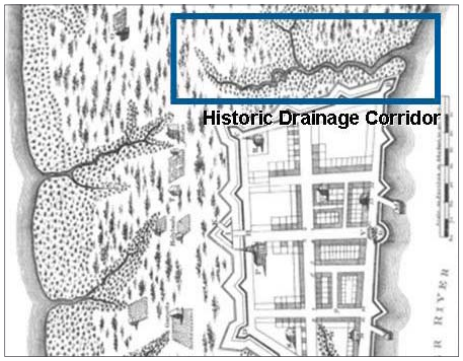
Custom House and Public Landing at the turn of the century



Union Cotton Press & Wharf Company, one of many private wharves at Union Pier in the 19th century

Bennett's Rice Mill facade today, constructed 1844

Site of Bennett's Rice Mill and Mill Pond



Historic Market Street drainage corridor

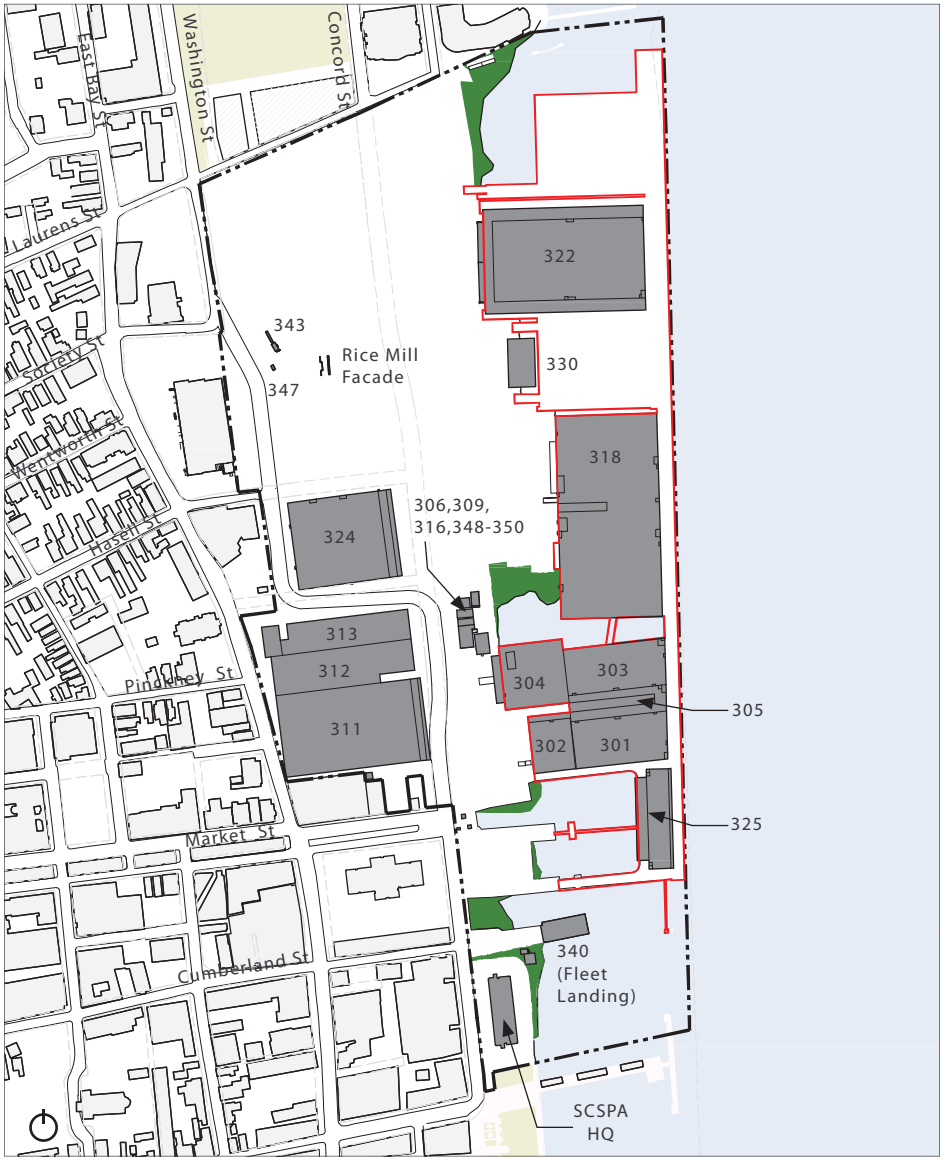
SITE

EXISTING CONDITIONS

The Union Pier Terminal site is roughly 74 acres in area, of which 43 acres are land, 20 acres are constructed deck over water, and 11 acres are portions of the Cooper River contained in the tax lot. The site is roughly 3,000′ long north-south and 1,300′ at its widest point. The constructed wharf is 2,470′ long.

BUILDING INVENTORY

Building Number	Area (sf)
301	39,685
302	21,350
303	41,246
304	39,428
306	2,421
309	1,150
311	106,155
312	46,900
313	37,853
314	381
316	2,757
318	92,605
322	108,480
324	80,366
325	30,216
330	11,505
341A	1,351
341	13,464
343	288
344	412
345	412
347	105
348	900
349	1,098
350	961
360	108



Existing structures

Dimensions

Existing Deck Area

Aerial

SITE

The site has three primary uses today, which include the location of the SCSPA headquarters building, the Cruise Ship Terminal and its associated parking and service facilities, and a large roll-on/roll-off cargo operation. The majority of the site is dedicated to the roll-on/roll-off operation, currently serving the import and export of BMW motor vehicles. Over 680,000 SF of shed structures dot the terminal. Many of the sheds are served by multiple rail lines that cross the site.

Other buildings and uses on the site include a restaurant, Fleet Landing, which occupies a former Navy building built in 1942 at the foot of Cumberland Street, and the historic Bennett's Rice Mill façade. Bennett's Rice Mill opened in 1845 during the heyday of South Carolina's rice production. In the early 20th century, the Bennett family sold the mill and it was eventually acquired by the SCSPA in 1958. Nearly destroyed by a hurricane in 1960, the façade is supported today by a steel frame and surrounded by a fence. Through agreements with the SCSPA, local preservationist groups have assumed the stewardship of the façade.

Existing Cruise Terminal

SCSPA Headquarters

Cargo storage

Fleet Landing restaurant

Existing restricted access at site

Existing warehouse and deck structures

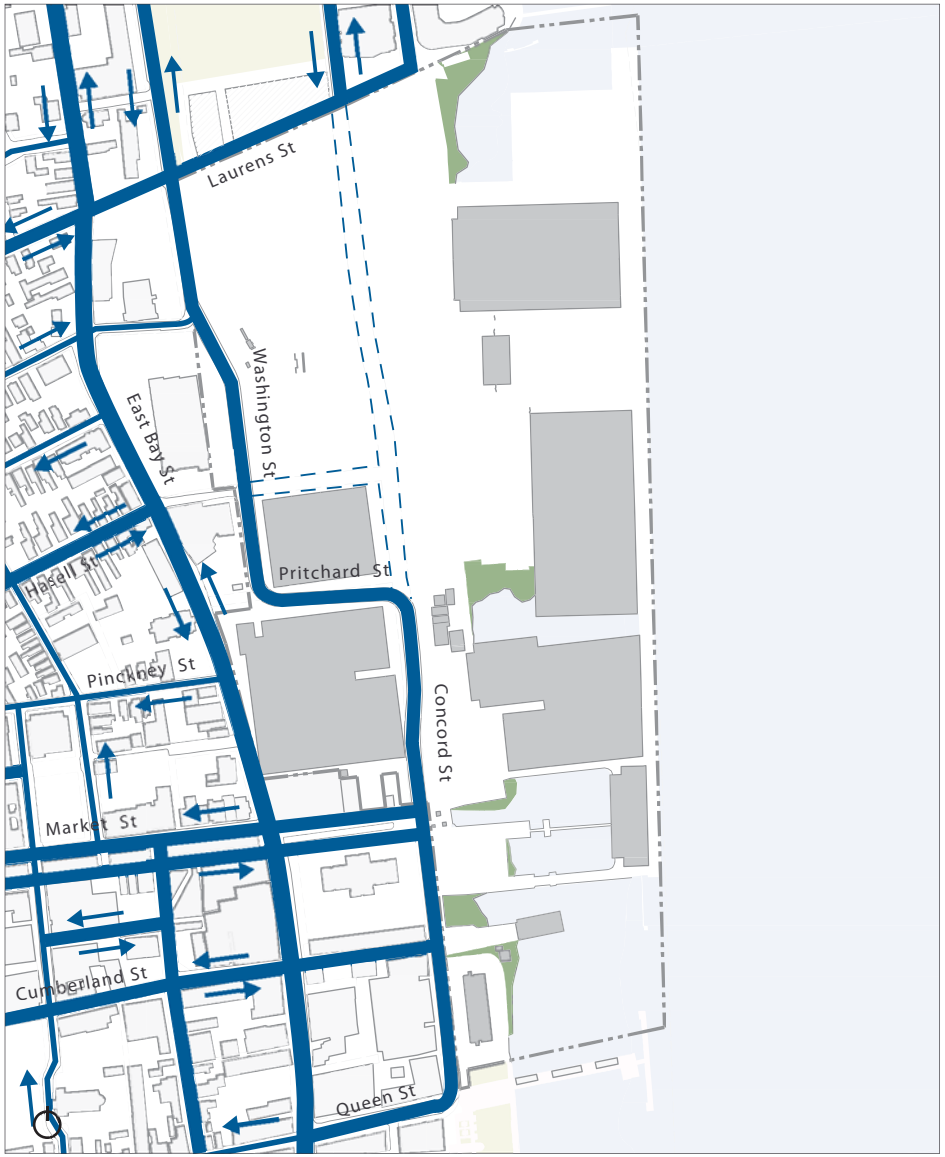
Existing warehouses and wharf

Existing warehouses along Concord Street

EXISTING ACCESS AND STUDY AREA ROADWAYS

Charleston is served by a primary and local street network that forms an imperfect grid over the Peninsula. Transportation in the Peninsula is multi-modal; visitor and local passenger vehicles, charter buses, transit, and pedestrians and bicyclists share the roadways.

The primary regional access to the Concept Plan area is via I-26 and US 17. Traffic from these highways make their way to the Concept Plan area on East Bay and Calhoun Streets. Local access to the Concept Plan area is provided by a number of east-west streets including Laurens Street, Society Street, Hasell Street, and Market Street. North-south travel within the Concept Plan area is accommodated by Washington Street and Concord Street.

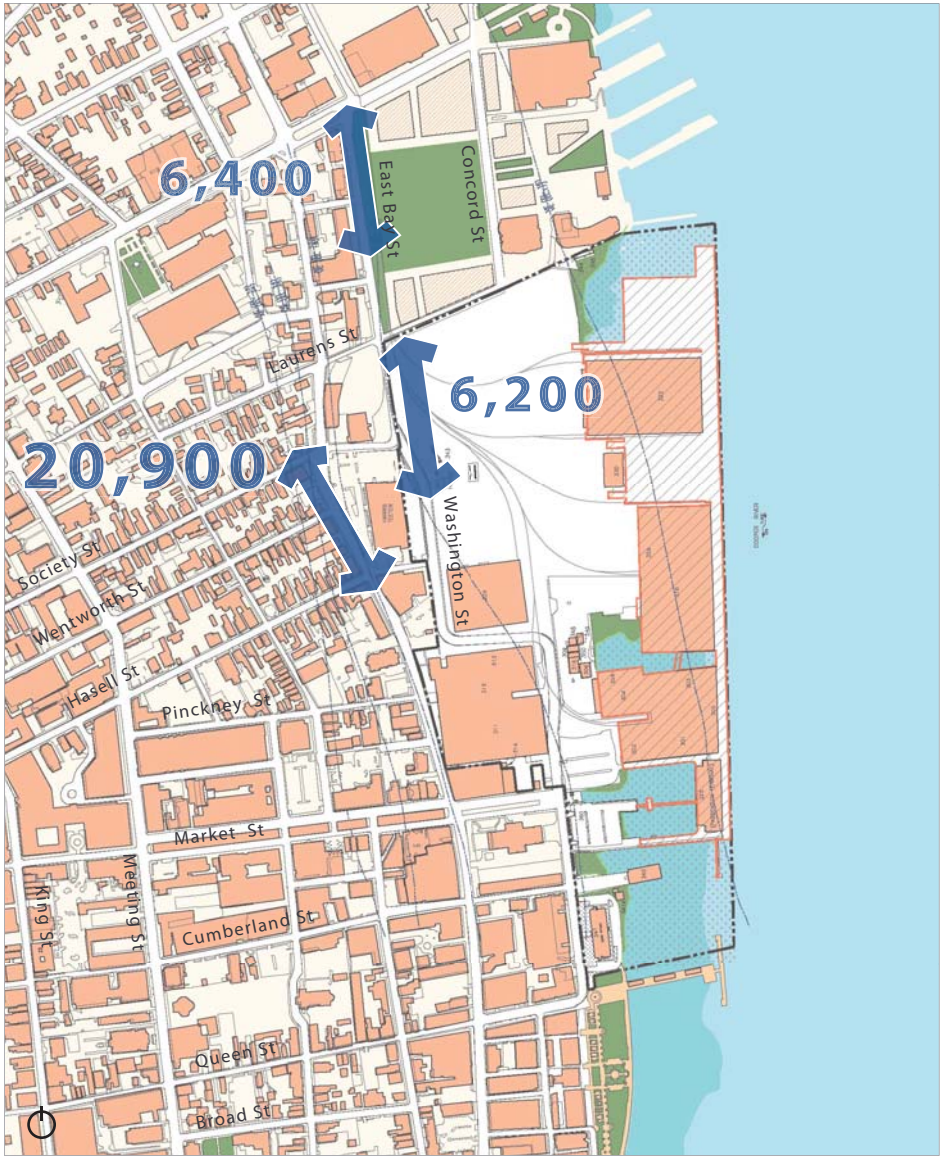


Existing road network

SITE

The following section describes the primary regional and local streets serving the Concept Plan area:

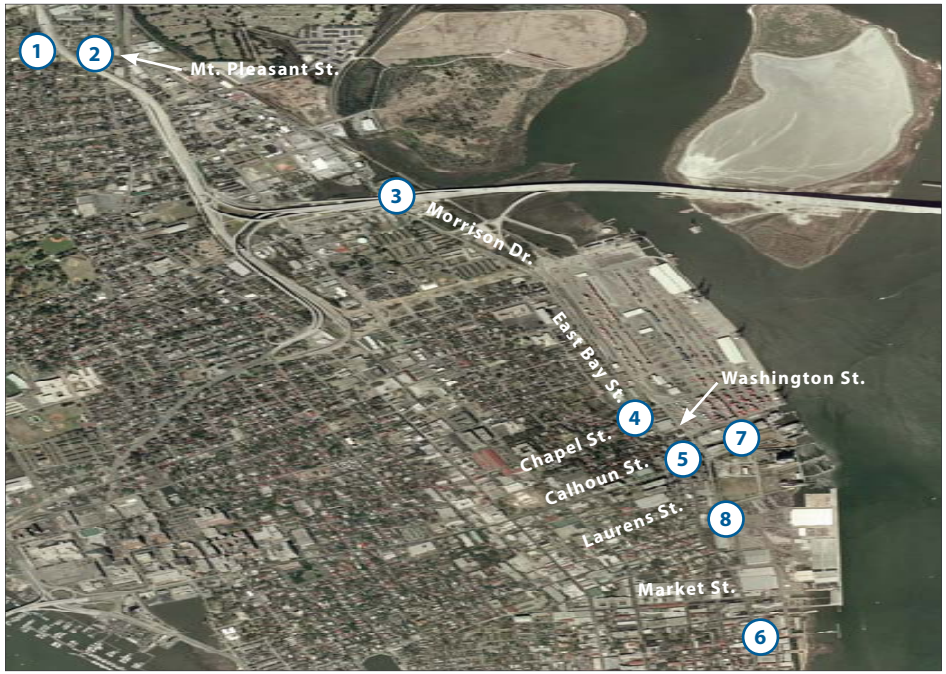
- East Bay Street is a four-lane roadway throughout most of the study area. It provides a critical north-south link on the east side of the Peninsula, carrying approximately 21,000 vehicles per day (see Figure this page). On the northern end of the study area, East Bay Street becomes Morrison Drive, then Mount Pleasant Street as it reaches I-26.
- Washington Street is a two-lane roadway in the northern section of the study area with parking on both sides of the roadway in most of the study area. Washington Street carries approximately 6,000 vehicles per day (see Figure). In the middle of the study area, Washington Street makes a series of sharp turns and becomes Concord Street.
- Concord Street is a two-lane roadway in the southern section of the study area. There is on-street parking on both sides of the roadway on the southernmost block.
- Major east-west streets include Calhoun Street and Market Street. Calhoun Street is a four-lane roadway that traverses the Peninsula and provides direct access to US 17 to the south. Market Street is a two-lane roadway providing east-west access between King Street and Concord Street.



Study Area Daily Traffic Volumes

The transportation analysis for the Concept Plan reviews traffic conditions on the primary streets accessing the Concept Plan area. The ability of these streets to accommodate traffic is defined by the capacity of their intersections, thus the transportation analysis focuses on the operation of the following intersections:

1. Mt. Pleasant Street at I-26 Off-ramp
2. Mt. Pleasant Street at I-26 On-ramp
3. Morrison Drive at US 17 Off-ramp
4. East Bay Street at Chapel Street
5. East Bay Street at Calhoun Street
6. East Bay Street at Market Street
7. Washington Street at Calhoun Street
8. Washington Street at Laurens Street



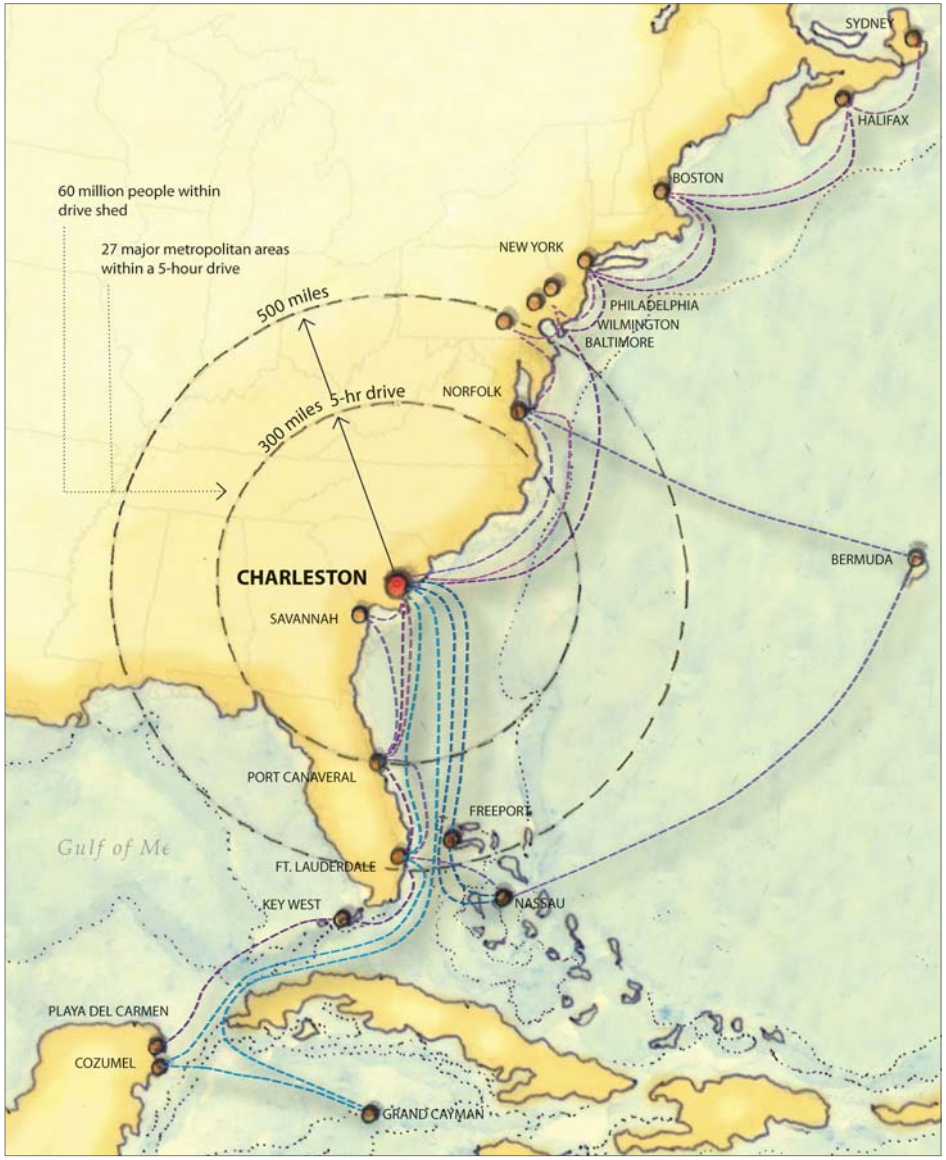
Study Area Intersections

III. CRUISE TERMINAL DISTRICT

INTRODUCTION

Charleston is located on the eastern seaboard, approximately halfway between the Florida deepwater ports and the Northeastern centers of population, including the ports of Baltimore, Philadelphia, New York and Boston. Charleston provides the southeast United States with the ability to serve a very active drive market, unique to the region. A limited airline connection for Charleston assists cruise lines in capping their passenger loads from Charleston homeport.

Charleston has been identified as a single vessel, single cruise passenger homeport terminal location. Charleston does not lend itself to multi-vessel homeporting, but does allow for the possibility of homeporting and port of call activities. It is not anticipated that both homeporting and port of call take place at the same time, except for in the event of emergencies, weather conditions, and other nautical events.



Cruise routes along eastern seaboard

VESSEL CHARACTERISTICS

The design vessel requirements listed in the Concept Plan Request for Proposal (RFP) is for homeporting a 3,450 passenger ship at a Cruise Passenger Terminal. All Cruise Terminal operations, including parking, Customs and Border Protection (CBP), and other program elements have been considered and will accommodate the passenger capacity as listed. Additional considerations and information will be needed beyond the Concept Plan level to identify and address specific ship needs.

RECOMMENDED DESIGN VESSEL SIZE (POST-PANAMAX)

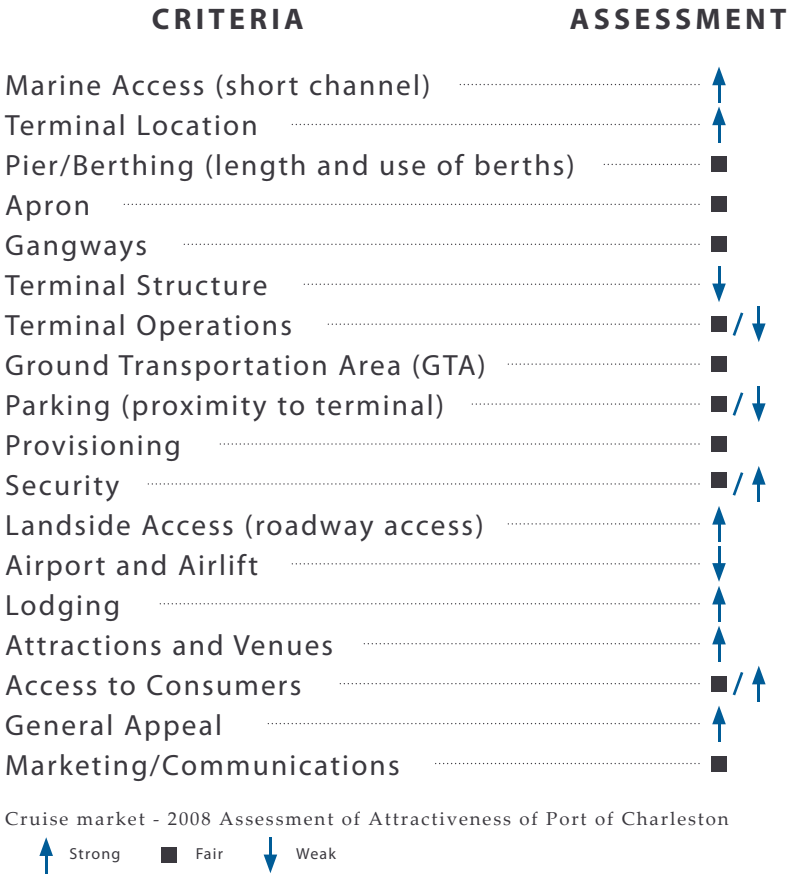
Passenger Capacity	3,000 to 3,500
Crew	Up to 1,200
Gross Tonnage	100,000 - 150,000
LOA (ft)	950' - 1,100'
Beam (ft)	120' - 160'
Draft (ft)	28' - 32'
Air Draft (ft)	Up to 200'

VESSEL BERTHING REQUIREMENTS

B&A recommends providing 3 x 200 – 250 ton, high-capacity wind bollards, 3 x 100 – 150 ton mooring bollards and additional spring bollards. These requirements will need to be refined during the design of the terminal renovations with additional studies to ensure that placement and capacity will serve all future ships calling on Charleston.

GANGWAY REQUIREMENTS

B&A recommends the use of two telescoping, fixed rotunda gangways with wheel bogies to manipulate the gangways in place. Building 322 layouts provided on page III.14 indicate the proposed placement of the gangways' fixed points. Final gangway locations, tide variation, connections to ship for passenger loading and other specifics should be studied with the design of the terminal.

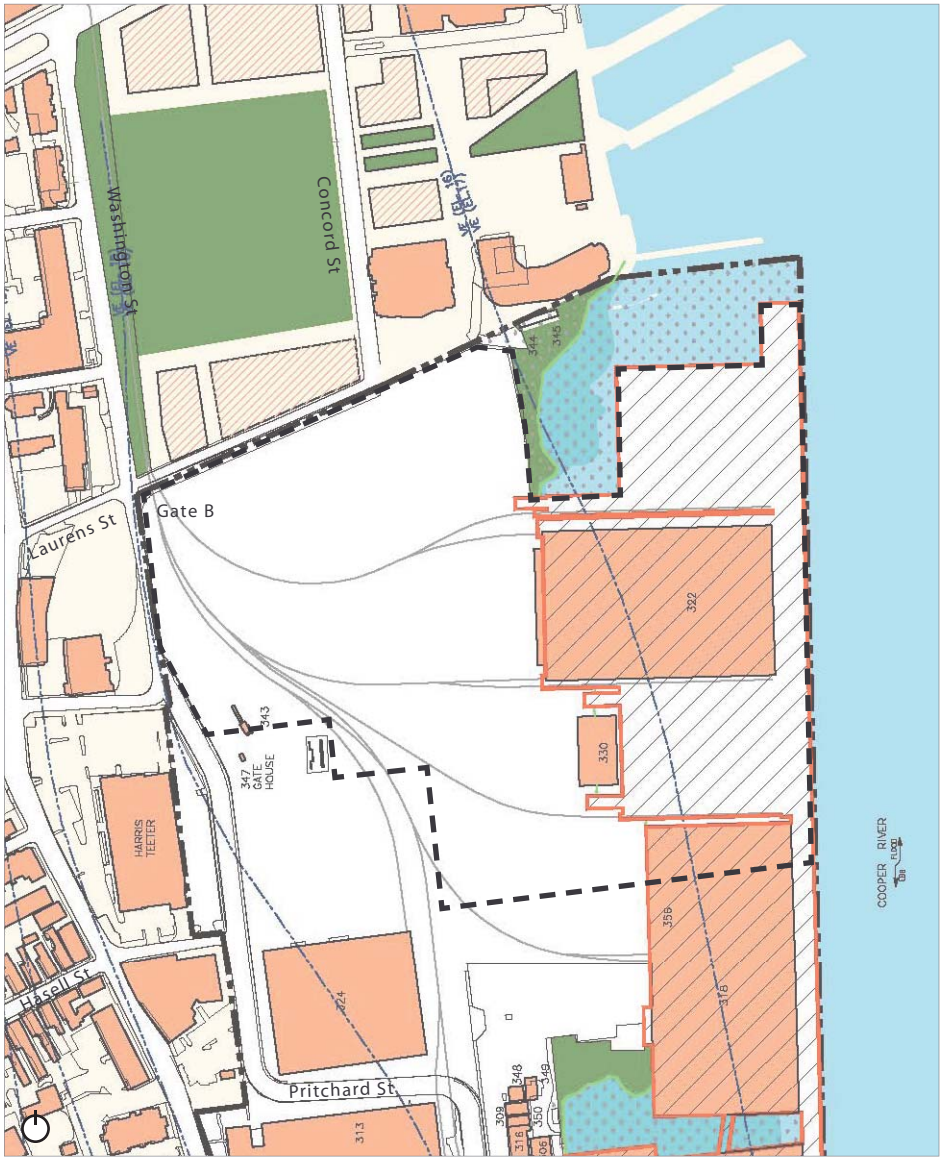


SITE SELECTION

During the initial process of planning Union Pier, the site area was limited to the south end of the pier. Buildings 301, 302, 303, 304, 305, 306, 309, 311, 312, 313, 316, 324, 325, 348, 350 and 354 were included in the study area and formed the basis for the Cruise Passenger Terminal. In early November of 2009 the Concept Plan study area was expanded to include the entirety of Union Pier. Building 322 was identified for consideration to be renovated into a Cruise Passenger Terminal.

Building 322 and the surrounding site afford the ability to contain cruise operations to an area within the SCSPA property, eliminating the need to extend cruise operations to public streets. Among the positive elements of the site, existing conditions can easily accommodate at-grade parking, ground transportation areas for buses, taxis, private-owned vehicles, service trucks, and security and government agencies. Building 322 provides sufficient area within its footprint to be renovated into a cruise passenger terminal. Based on the vessel size listed in the SCSPA's RFP the building's size can provide all necessary spaces to successfully process a cruise ship. Additionally, the location of the building within Union Pier is ideal because of its longer surface dock apron, closer proximity to the interstate highway, and the ability to remove cruise traffic from historic Downtown Charleston. From the maritime standpoint, the channel and berth already accept large service and car carrier ships making the location ideal for cruise ships to berth.

Any construction, renovation, or improvement to the area selected for cruise passenger operations needs to be based on sound economic models, with viable return on investment. Additionally, these improvements need to be tailored towards the SCSPA's cruise business and the ability to welcome more than one cruise line from a single cruise berth.

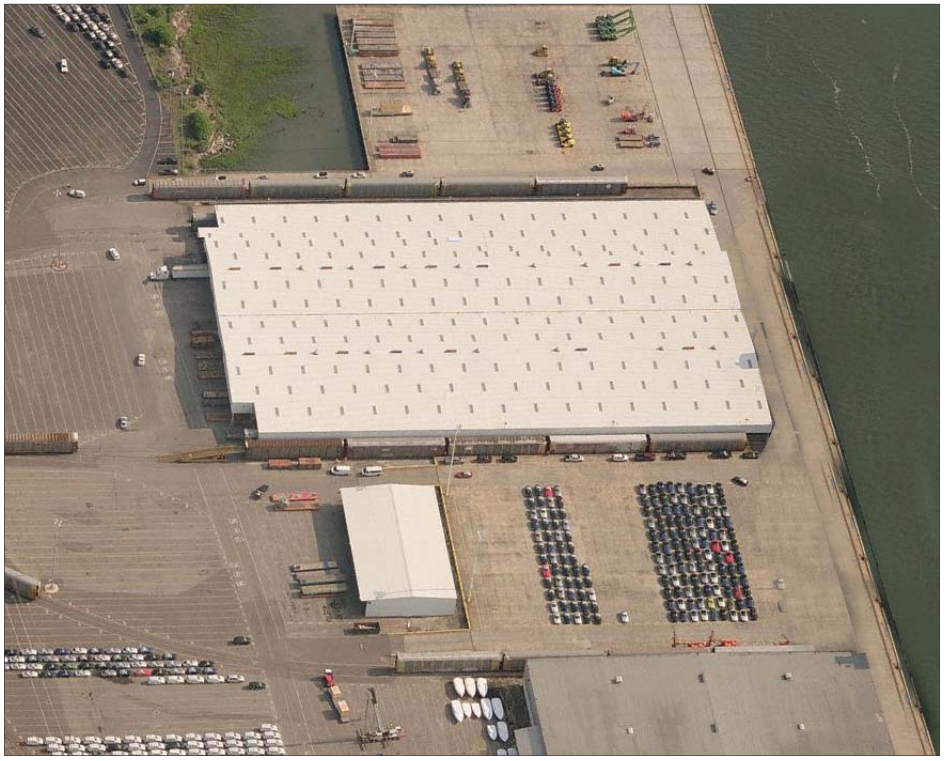


Cruise terminal district

From the operational standpoint the site offers the following:

- The ability to minimize traffic congestion by separating passenger drop-off and pick-up zones from all other forms of traffic, local or cruise related,
- The ability to separate cruise-generated pedestrian traffic from vehicles serving the cruise terminal,
- The ability to store queued vehicles on the site without obstructing local traffic flow,
- The ability to bring service vehicles to the cruise ship without disruption to passenger traffic, by utilizing available ramps and roads.
- The ability to provide separate areas for buses, taxis, and passenger pick-up/drop-off zones within proximity of the entrance to the terminal.
- The ability to provide passenger parking in the immediate proximity to the terminal by utilizing existing paved areas currently being used for vehicle storage. In essence, this is a positive to both operations and cost of construction, since paved areas already exist and small modifications are all that would be needed.
- A great deal of flexibility is added with the removal of railroad lines and spurs entering the site and building by the elimination of limitations to parking, drives and deck height configurations.
- A proposed site plan and terminal conceptual layout was presented to the cruise lines and was well received. Of particular interest to the cruise lines is the ability to embark and disembark passengers simultaneously within the site and more significantly inside the building, by using two gangways and clearly separating embarkation and disembarkation areas.

B&A believes Building 322 and its adjoining site area are prime candidates to be renovated into a modern day Cruise Passenger Terminal serving Charleston's cruise business for years to come.



Building 322

Building 322

CONCEPTUAL SITE PLAN

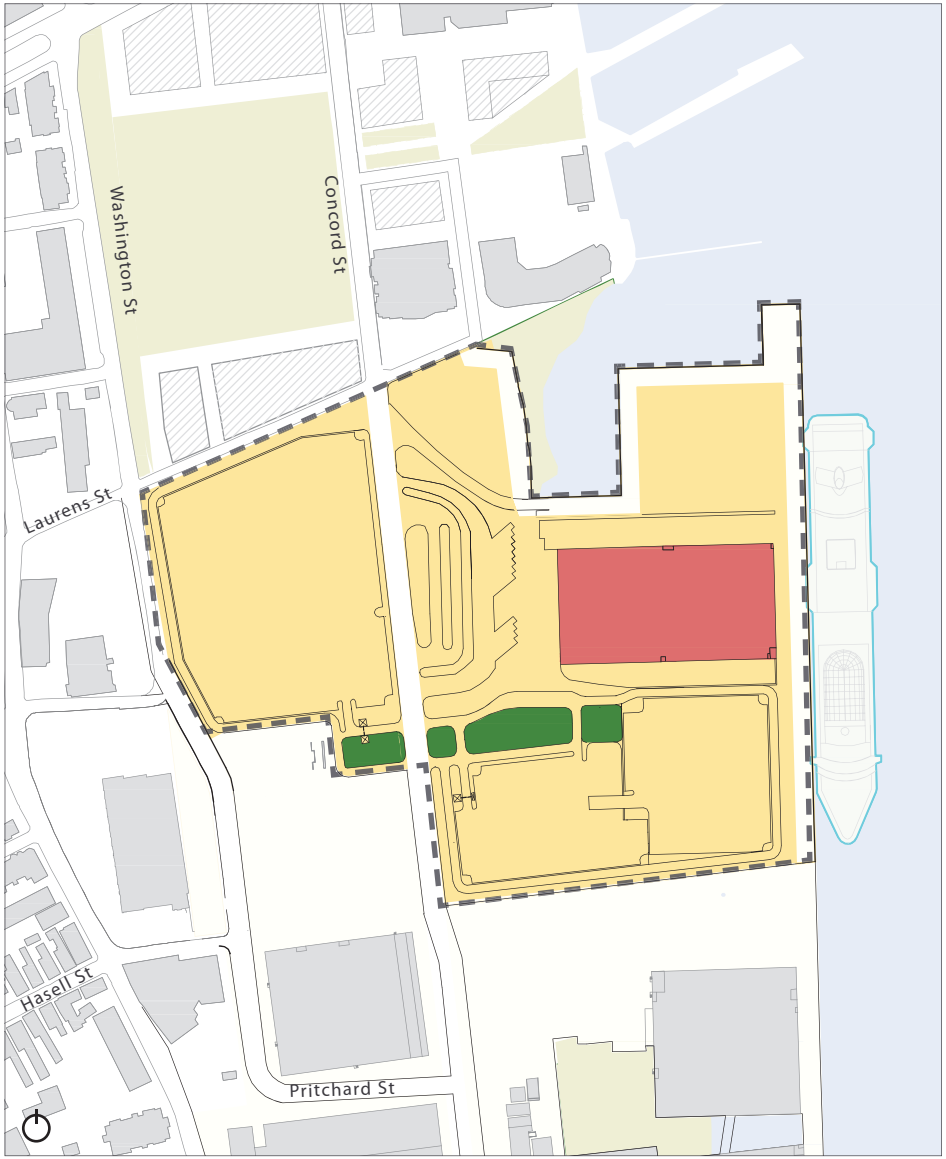
UNION PIER - CONCEPTUAL SITE PLAN

The Cruise Terminal District is an area zoned to address the operations of cruise embarkation and disembarkation and port of call operations.

- Cruise passenger terminal,
- At-grade parking for the anticipated passenger size vessel,
- Separate areas for drop-off and pick-up by buses, taxis, and private owned vehicles,
- Roads and drives to allow service trucks to reach the dock apron,
- Parking for cruise line employees, government agencies, and security personnel,
- Elevated deck for servicing the cruise vessel and to operate as a dock apron.

BUILDING 322 - CRUISE TERMINAL

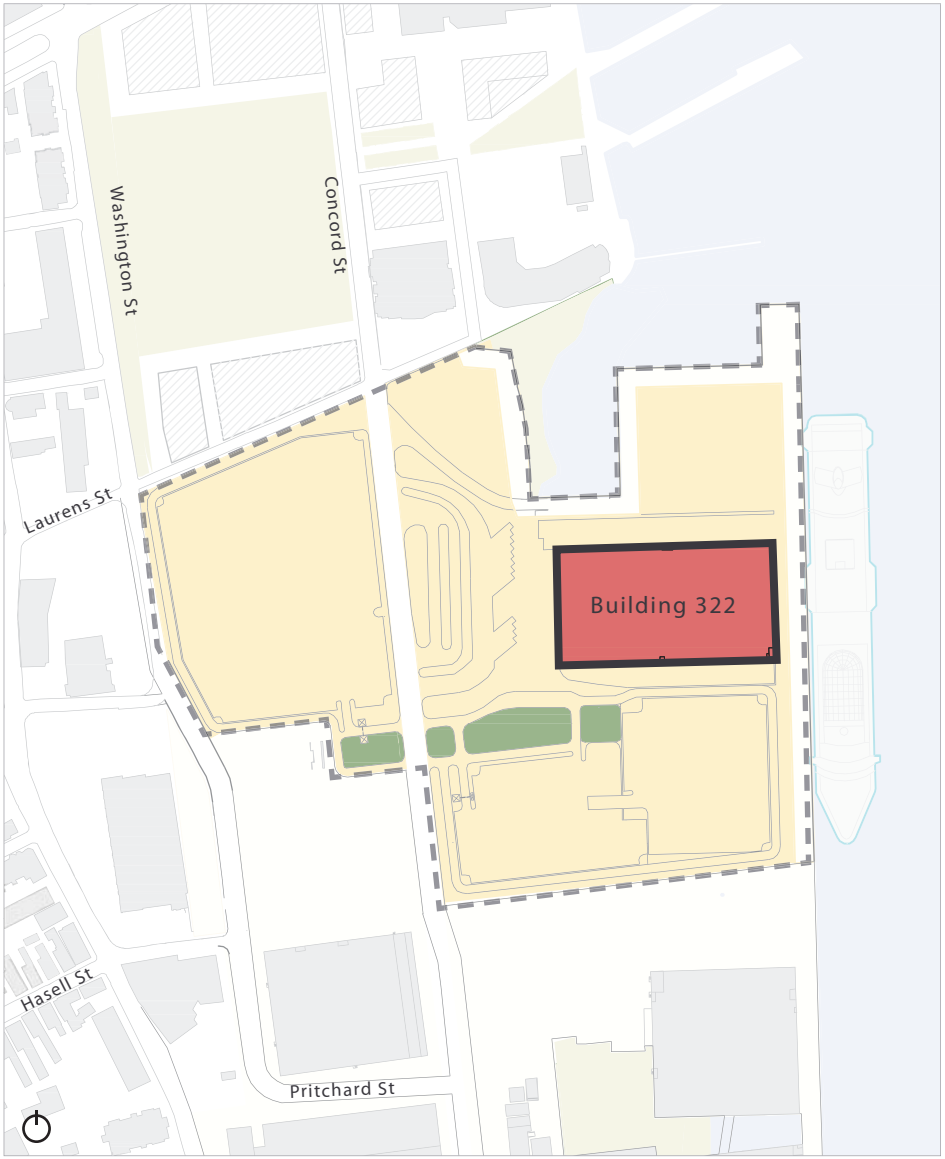
Building 322 is presently a warehouse used to store household goods in transit located within the South Carolina State Ports Authority's Union Pier, at its north end. The footprint of Building 322 is a 240' x 450', or approximately 108,000 SF, in a single story building with a small suite of offices located on the second floor, southeast corner of the building. Construction of the warehouse is elevated cast-in-place concrete deck over piles above the Cooper River. The load bearing capacity design for the deck is 600 LB / SF, as evidenced by the painted markings in the interior of the structure. The building's exterior, from 8' above the finished floor up is steel framing with painted galvanized stamped steel cladding for both vertical and roof surfaces. Skylights are evenly spaced throughout the roof and bring limited natural light to the interior. From the finished floor to 8' of height, walls are cast-in-place concrete. There is a row of columns through the middle of the building in the east-west axis; all other structural supports are at the perimeter, on top of the 8' high concrete wall. On the north and south sides of the building railroad spurs allow railroad cars to serve under the building's roof. A loading dock extends into the railroad area at the same elevation as the interior of the building. Railroad lines are set up lower than the finished floor so cars can transfer goods to the building at the same height as the building's interior by matching the railroad car's floor to the building's finished floor.



Concept plan

Large overhead coiling doors and personnel doors provide access on all 4 sides. There are three sets of restrooms, two are located on the west side of the building on the north and south sides, and the third one is part of the suite of offices and serves the dock area at the same level as the dock. Electric service provides power to lighting, fans and outlets. The building has a fire suppression system with fire sprinklers, fire risers, and fire control equipment. General warehouse lighting is by large roof structure suspended fixtures. Roof mounted electrically operated fans provide air movement. The building and its systems appear to be in good condition, based on our visual observations. Elevated concrete deck, exterior walls, including both concrete and steel frame, and cladding are in very good shape. Further in-depth analysis of the structure's design and condition are needed to establish if the building can be used as a cruise passenger terminal, with the main concern focused on the steel structure's ability to meet building codes for both high wind and seismic conditions.

As presently configured, the existing building provides a flexible platform to renovate into a workable cruise passenger terminal. There is adequate floor area and the fact that the space is uninterrupted, except for a single row of columns, makes Building 322 a good candidate for conversion.



Cruise terminal

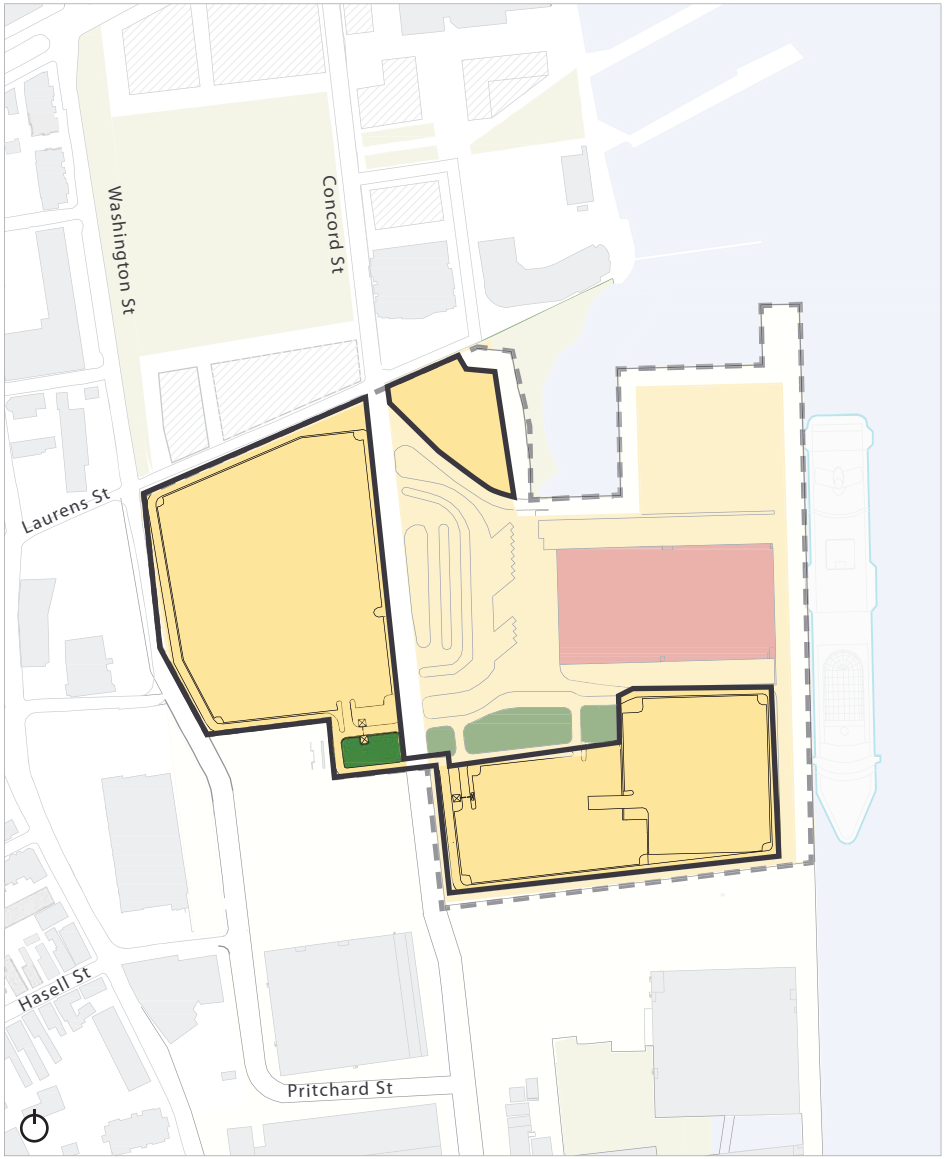
CONCEPTUAL SITE PLAN

PARKING LOTS

The site located directly west of Building 322 is presently asphalt paved and is part of the SCSPA property. There are numerous railroad lines that enter the site from the northwest at a gate referred to as Gate B. The area is used by BMW to load vehicles to car carrier ships that dock at the north end of Union Pier. Vehicles arrive at Union Pier via railroad, are driven off the railroad cars, and marshaled for shipping. Storage of vehicles takes place on the elevated decks to the north and south of Building 322, in adjacent Building 318 and at-grade paved areas west, north, and south of Building 322. Access to the dock apron is through existing ramps connecting paved areas to the elevated deck. There are two large cast-in-place concrete ramps to the north and south of Building 322, with a third ramp south of Building 330. Two large open elevated decks at the same elevation as the interior of Building 322 exist to the north and south of building 322. The one on the north side serves as staging for heavy equipment, buses and motor coaches. The one on the south side is primarily used for BMW vehicles.

Building 330, referred to as the 'boat storage', is located south of Building 322. The structure is an open building with its main floor matching adjacent grade to the west. Building 330 has permanent walls to the north, east, and south, and a roof. Long trailers are stored inside. This structure provides no useful value in the cruise passenger terminal and should be removed to provide for surface parking.

From the west to the east, starting at Washington Street, uplands and paved areas slope to the river, creating a height difference to the elevated deck in Building 322. Approximately 5' separate land area from the building's finished floor elevation. That height varies through the length of Building 322's west façade. A network of railroad lines and spurs is also located in this area. A topographic survey to confirm elevation differences is needed to accurately establish grade differences throughout the existing paved upland. Between Concord and Washington streets, directly west of Building 322 is South Carolina Electric & Gas Company property currently leased by the SCSPA. SCSPA advised the Concept Plan team that the area cannot be used



Parking Lots

for building permanent structures; parking and other surface-only uses may be allowed.

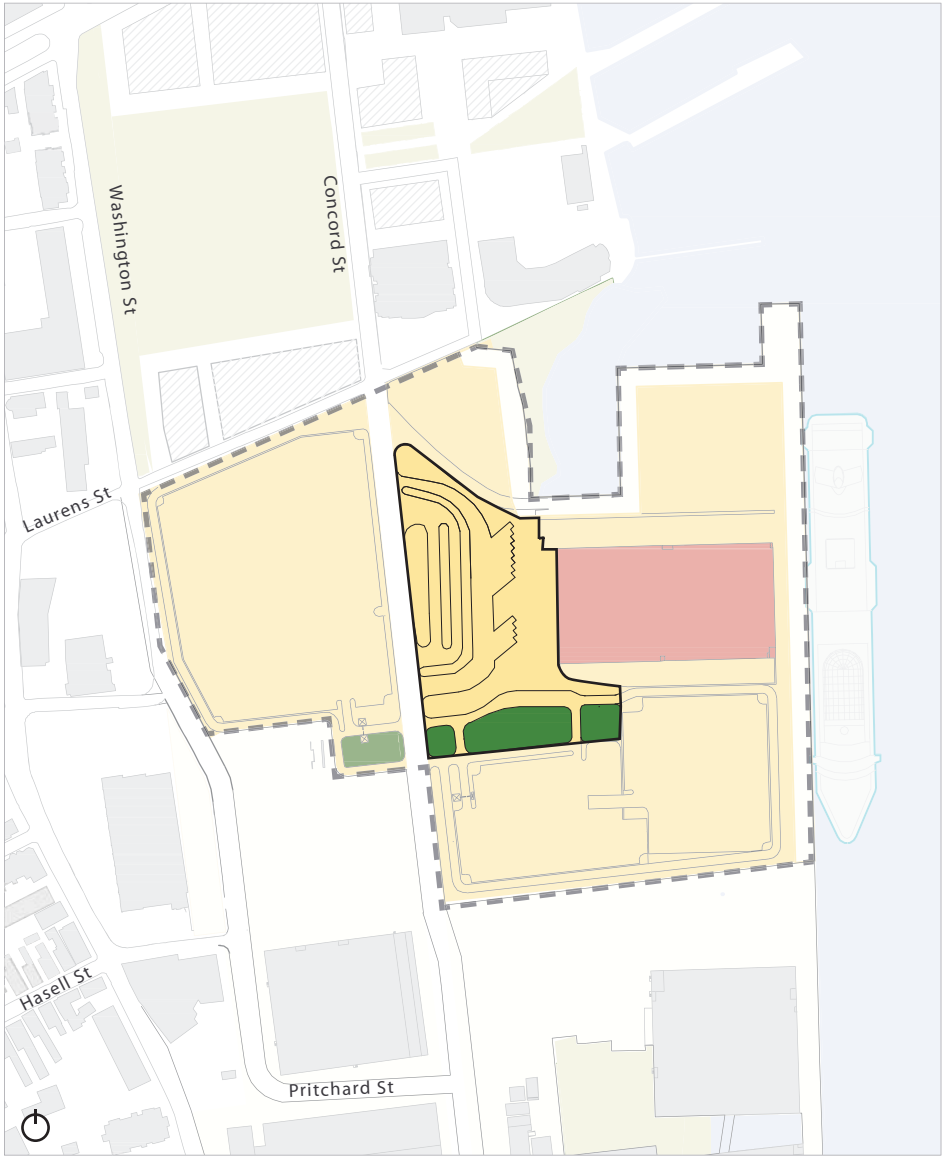
SCSPA constructed a gatehouse north and west of the Rice Mill façade to control access to the north end of Union Pier. The gatehouses are identified as buildings 343 and 347 and appear to be pre-engineered structures surrounded by concrete barriers and gate arms that control access and direct traffic to the pier.

GROUND TRANSPORTATION AREA

Managing vehicles transporting passengers, products, and services to the Terminal needs to be accomplished with a great deal of efficiency. Ground transportation area [GTA] addresses each type of vehicle and service provided separately in order to maintain efficiency, avoid tie-ups and delays, and to make the passenger's experience pleasant. Separate driveways and waiting areas are provided for motorcoaches / buses / mini-buses, taxis, private automobiles, and service trucks. By separating each of the vehicle types, functions and services are separated. This allows for efficiencies in each of the vehicular movements since they are not mixed. Traffic flows are improved and the time needed to process disembarkation and embarkation is reduced, since reaching the Terminal and ship are accomplished without overlapping traffic functions.

Motorcoaches, Buses, Mini-buses or Shuttles

Since these vehicles transport the greatest volume of people and luggage, the area closest to the Terminal building's main doors is the best suited location. Twelve spaces for these vehicles have been placed just west of the western face of Building 322. An ample plaza area is provided between bus parking and the building to allow disembarking passengers to gather their belongings and companions and be given direction to proceed to a determined vehicle based on destination. When passengers are embarking, this same area allows them to hand over their luggage, gather their travel documents, and proceed to the Terminal away from other passengers and their luggage.



Ground Transportation Area

Also, these larger vehicles require larger paved areas to make turns and navigate through traffic. Wider turning radii, longer approaches, deeper parking spaces, and an area where passengers and bags can be loaded and unloaded into the vehicles is provided. Angled parking is used to allow for easier arrival and departure. In addition to vehicle back-up space, a bypass lane is provided. This feature allows for continuous movements without interruptions while a bus backs up from its stall.

Taxis

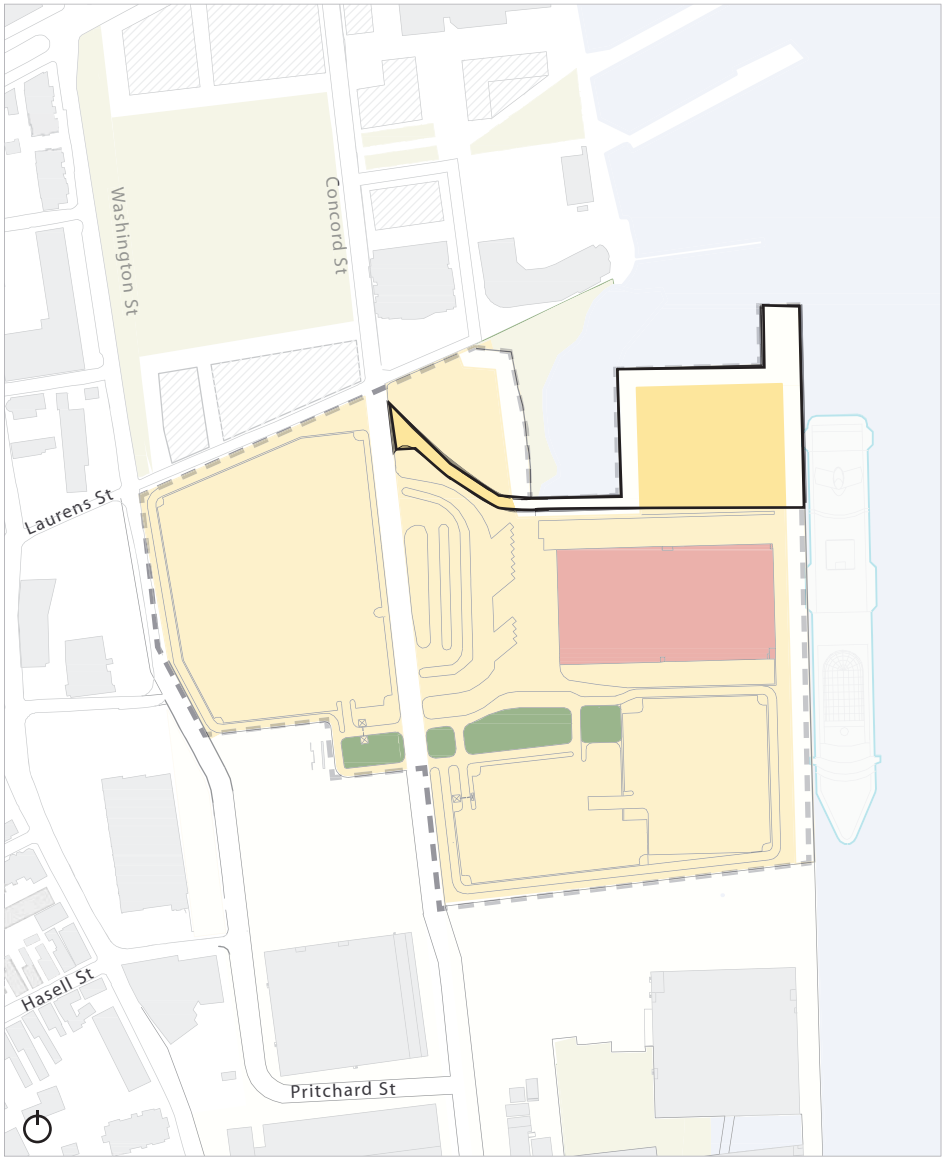
An area where passengers arriving by taxi are loaded and unloaded is provided just west of the bus parking area. The most efficient way to move taxis is by providing linear sections where taxis pull in, passengers step out, bags are handled by stevedores, and passengers proceed to the Terminal. Two drop-off linear lanes are provided in order to accommodate approximately twelve taxis. Each of the drop-off lanes is next to an area wide enough to have passengers, companions, and bags out of the way of traffic during embarkation, and where passengers waiting to get into taxis can safely wait out of traffic lanes. Bypass lanes are provided to each of the taxi lanes, much like in the case of motorcoaches, buses, and mini-buses, these lanes allow for standing vehicles to load and unload without impacting the flow of cars that have completed their process.

Automobiles

In order to manage the drive market served by Charleston's cruise business a large area dedicated to serve the private passenger drop-off is provided. The south side of Building 322, starting west of the existing elevated ramp, is designated for private drop-off. Arriving passengers will loop around the internal drive system, cross over Concord Street and proceed to the south side of the Terminal. Driver's companions and their bags will be dropped off at the curb, the bags will be taken to screening, and the passengers to the Terminal. The driver will park in the adjacent parking lots, walk to the Terminal where they will join their companions to enter the building. As in the case of buses and taxis, a bypass lane is provided to ensure rapid movement of cars without the delays associated with stopped cars while their passengers are unloaded.

SERVICE AREA

Service and provisioning trucks are provided with a separate drive for their use. These trucks need to get to the dock apron to be staged and unloaded after clearing security and a direct driveway is the best and fastest way to accomplish this goal. Given that most of the traffic reaching Union Pier comes from I-26 to the north, getting service trucks off city streets as soon as possible, as well as providing trucks with the first and most convenient access driveway, will improve both city and terminal traffic. Most provisioning trucks are long and slow, requiring long drives with easy turning radii. The northernmost drive entering the Terminal site provides stores trucks with dedicated direct access to the dock apron using the existing ramp located on the north side of Building 322. By placing trucks on the north side, interaction with other vehicles is eliminated. Once trucks reach the dock apron, there's ample space for them to stage and be directed to the cruise ship. In some cases, the aft section of the ship will be immediately located within the staging area, making the loading process even easier. Exiting the Terminal is just as simple; just reverse the ingress operation to leave the area.



Service areas

CRUISE TERMINAL PROGRAM

Based on the original SCSPA direction, the Terminal was designed for a 3,450 passenger vessel conducting Homeport operations. Listed below are the interior spaces and related areas needed to process such a vessel:

EMBARKATION AREAS

Passenger screening, cruise line check-in, waiting, restrooms, cruise line offices, and vertical circulation are needed for embarkation at the ground floor and would require approximately 54,000 SF to move passengers through a 2 ½ hour embarkation process parameter.

A second level / mezzanine concourse connecting vertical circulation with the gangway, including restrooms and vertical circulation, will require about 4,400 SF. This is a transitional space that serves the purpose of providing passengers a way to go from the second level / mezzanine to the gangway. In this space passengers will leave the gangway, enter the building, and find vertical circulation into the Baggage Claim area.

Baggage handling and screening requires arriving passengers to transfer their luggage to the cruise line. Operator and stevedores will take passenger luggage to the Baggage Handling area where x-ray equipment will scan all bags. Luggage will then be moved to the dock and into the cruise ship. An area large enough to screen luggage, with two or three x-ray scanners will require 10,700 SF. When in use during Homeport, forklifts, baggage cages, and other equipment will move luggage inside the space. When not in use, the space will store forklifts, baggage rollers [if used], cages, and other equipment used in the handling of passenger luggage.

BAGGAGE CLAIM

Baggage Claim is where disembarking passengers collect their baggage. Restrooms and vertical circulation are included in this space. Operator and stevedores will place passenger's bags on the floor. Passengers will reach the ground floor of the building, collect their bags, and proceed to CBP. In approximately 37,600 SF, 1,880 passengers should be processed per hour, allowing for complete disembarkation in approximately 2 hours. Baggage is brought into the space through large doors connecting the dock apron with the terminal. Forklifts carrying cages filled with bags will be laid down throughout the space for passengers to find them. A progressive baggage laydown is anticipated, but the space will need to be flexible enough to allow for other baggage laydown when needed.

Key Plan

Charleston began homeporting Carnival Cruise Line's *Fantasy* in May 2010

Civic uses where large open spaces are needed are potential uses of the building when it is not in use as a Cruise Terminal. The Charleston VRTC is available for private functions and civic events outside of normal operating hours.

CRUISE DISTRICT

CRUISE TERMINAL PROGRAM

CUSTOMS AND BORDER PROTECTION (CBP)

Under the current CBP regulations, passengers must go through the one-stop Federal Inspection Services [FIS] as described in the Cruise Terminal Design Standards [CTDS] promulgated by CBP in May of 2008. CTDS describes one-stop processes with its required spaces which can be broken down into two main areas; Primary Inspections and Secondary Inspections. Under current regulations immigrations, customs, agriculture, and all other federal inspections take place in one location and are based on having passengers, family members, and their luggage together to inspect at one time.

During October of 2009, SCSPA, B&A, & CRP held preliminary meetings with CBP officials from Charleston and Headquarters to gain an understanding of the expectations for this size terminal and location. Although the first meeting discussed the SCSPA's site for the Terminal at the south end of Union Pier, a subsequent meeting in February 2010 brought to light the option of renovating Building 322. In either case, CBP will look for the design vessel to establish passenger capacities which directly relate to described needs to be met under CTDS. Based on our conversations, Primary Processing will require approximately 19,000 SF, Secondary Processing approximately 9,600 SF. The approximate total area adds up to 28,600 SF. Further design considerations and the entire process of meeting with CBP Project Managers responsible for ensuring CTDS is met will result in space layouts and total areas needed to conduct inspections. That process will follow the Concept Plan once SCSPA pursues renovations to Building 322.

REQUIRED CBP/FIS PROGRAM

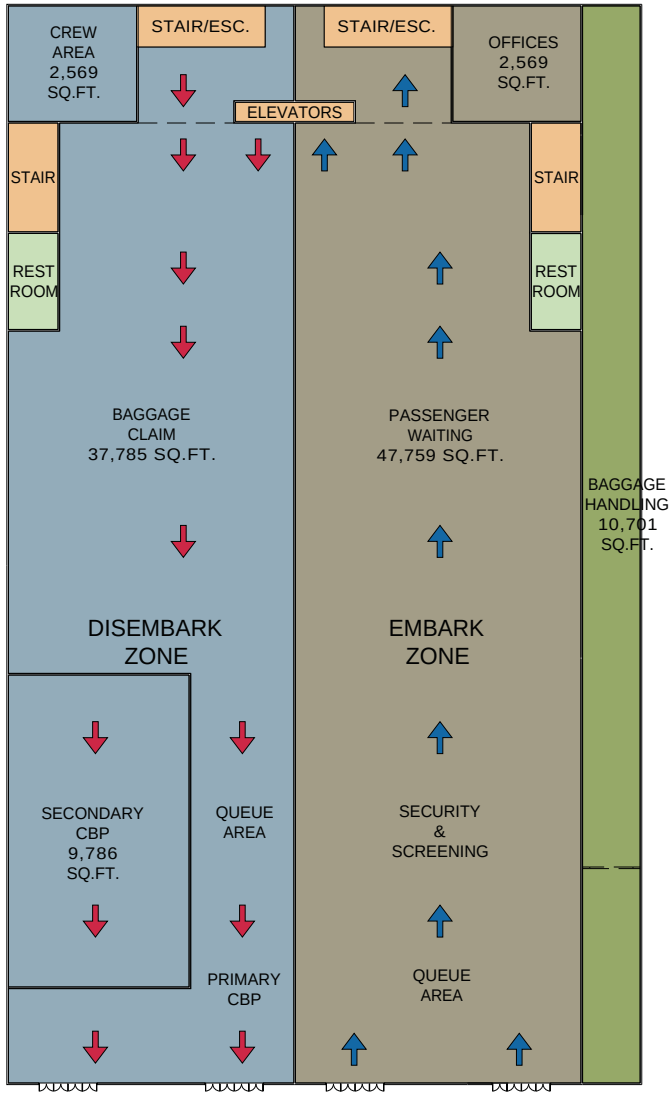
Primary Processing	19,228 NSF
Secondary Processing	4,502 NSF
Secondary Operations and Support	535 NSF
CBP Administration and Support	4,309 NSF
Exit Podium	315 NSF
Total CBP/FIS	**28,889 NSF**

CREW AREA

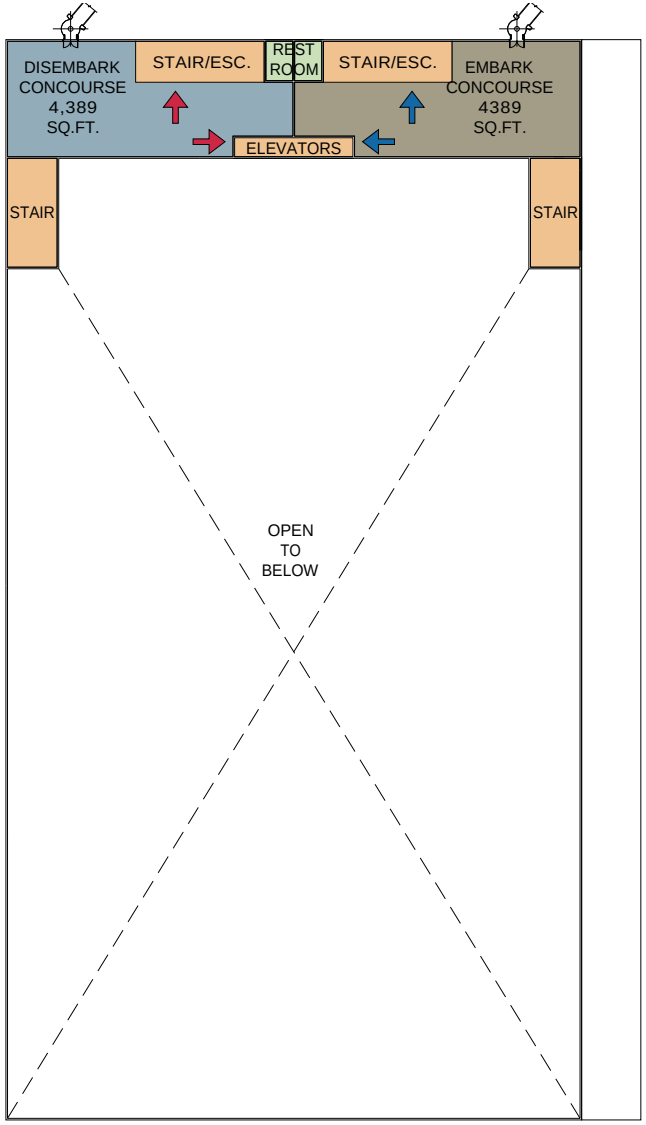
Processing crew during disembarkation is proposed to be located on the ground floor in the northeast corner, close to the dock apron. A separate entrance will allow crew leaving the ship to enter the Terminal where CBP and cruise line processing will take place. Embarking crew will use the same area once disembarkation is complete. Equipment for vetting and screening bags and individuals needs to be included in the space.

CONCLUSION

Building 322 offers sufficient area within its footprint to be renovated into a cruise passenger terminal capable of processing vessels of the size and capacity listed in the RFP.



First Floor Plan



Second Floor Plan

Embarking zone | Disembarking zone | Service | Vertical circulation | Baggage

TRANSPORTATION AND TRAFFIC

TRANSPORTATION GUIDING PRINCIPLE

Transportation planning for the Cruise Terminal area is directed by a singular guiding principle:

- Minimize cruise terminal traffic impacts on Charleston streets by creating additional access routes and retaining terminal traffic on-site

CRUISE SHIP TERMINAL ACCESS AND CIRCULATION

The Cruise Ship Terminal access is designed to accommodate the peak demands of embarking and disembarking passengers, buses, shuttles, taxis, and delivery vehicles. As stated previously, access to the terminal and parking areas eliminates conflicts between circulating vehicles to maximize efficiency between the loading and unloading of passengers and access to parking areas. Freight delivery to the cruise ships is separated from the Ground Transportation Area to improve safety and passenger convenience. All traffic will access the cruise ship area via Concord Street on the northern side of the property. Once on the site, delivery trucks are provided a separate drive to access the ship and their holding area (provided on the north side of the cruise ship building for trucks not actively loading or unloading at the ship). Passenger and luggage loading and unloading occurs within the Ground Transportation Area. This area is comprised of a one-way circulation system designed to separate the activity of buses, taxis, and carriages from that of passenger vehicles. Buses and taxis serve the terminal via the Ground Transportation Area in front of the terminal building. Passenger vehicles, whether drop-offs or parking for the duration of the cruise, circulate around the parking area to the passenger vehicle drop-off area. The main drop-off area is supplemented with a secondary drop-off area to be used during peak times. Once passenger vehicles have dropped their passengers and luggage off at the Ground Transportation Area curbfront, they proceed into the parking area or north on Concord Street to exit the property. Disembarking passengers are picked up from the curbfront by vehicles exiting the parking area or vehicles arriving from off-site. Embarkation and disembarkation activities are timed so that they do not coincide.

Ground transportation area

Passenger vehicles Service vehicles Buses and taxis

PROJECTED TRAFFIC VOLUMES

On embarkation or disembarkation days, many different types of vehicles will access the cruise ship area to load and unload passengers or to service the ship. Table III.1 below shows the projected distribution of traffic by vehicle type for each hour of activity.

Historically, the embarkation event has had the most significant impact on the local transportation system due to the typical embarking passenger travel characteristics and the general steps of their experience as they arrive at the terminal. The midday period is the time period of most concern related to transportation impacts and was therefore studied. No PM peak hour impacts are anticipated.

Note that the chart below is an estimate as no surveys, counts, or other historical information specific to the Port of Charleston were used to generate the chart. The information provided requires confirmation of accuracy before proceeding with design based on the information provided for the Design Vessel capacity.

Time	Semi Tractors	Small Trucks	Passenger Coaches	Taxis	Debark POV	Embark POV
6 – 7 AM	6 - 8					
7 – 8 AM	6 - 8	2 - 4	3 - 6	5 - 10		
8 – 9 AM	2 – 4	2 - 4	3 - 6	10 - 15	150 - 250	
9 – 10 AM		2 – 4	2 - 4	10 - 20	200 - 300	
10 – 11 AM					150 - 250	25 - 100
11 – 12 PM			2 - 4	5 - 10		150 - 250
12 – 1 PM		1 - 2	3 - 6	10 - 15		200 - 300
1 – 2 PM		1 - 2	2 - 4	10 - 20		50 - 100
2 – 3 PM			1 - 2			25 - 50
3 – 4 PM						
4 – 5 PM						
Totals	**14 - 20**	**10 - 16**	**16 - 32**	**50 - 90**	**500 - 800**	**450 - 800**

Table III.1 Traffic Related to Cruise Ship Embarkation and Disembarkation for a 3,450 passenger vessel

QUEUING WITHIN SITE

Existing Conditions

At the current Cruise Terminal site, drop-off or parking passenger vehicles enter the cruise ship terminal area near the intersection of Laurens Street and Concord Street on the north side of the site. These vehicles then travel through the property to drop off passengers and baggage and either park or depart. The current plan allows 250 vehicles to queue within terminal property. The Port and the City of Charleston created a recently unveiled traffic plan to address issues of queuing on city streets. Passengers arriving by taxis or buses enter at the terminal's main gate on Washington Street. On embarkation days, Concord Street/Washington Street is closed from Hasell Street to Market Street. This roadway section is not closed for disembarkation or Port of Call days.

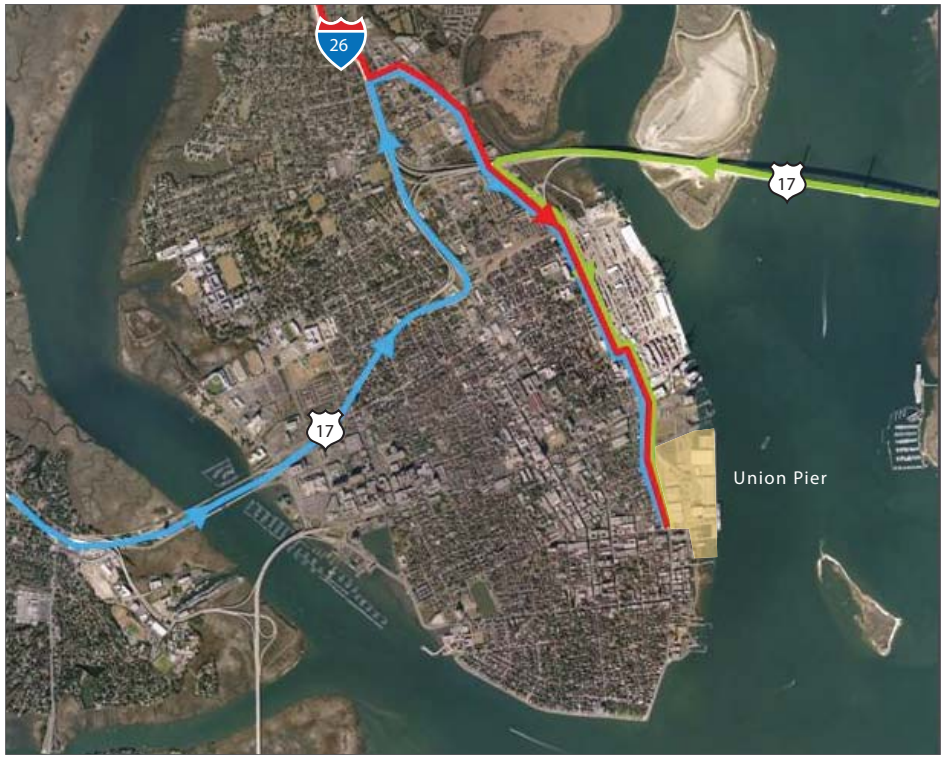
Proposed Plan

Based on the projected embarkation vehicles projected in Table III.1, the GTA curbfront will be utilized from 10 AM – 3 PM. The curbfront for passengers to drop off their baggage is 260 feet long. During the peak times of 11 AM - 2 PM, a secondary 260-foot curbfront may be opened to facilitate additional speed in passenger bag drop-offs during this busier time. The access roadway to the curbfront is 3,670 feet long and was designed to accommodate queuing within the cruise terminal site.

TRANSPORTATION AND TRAFFIC

REGIONAL AND LOCAL ACCESS

The 2007 Market Study for cruise ships out of Charleston indicates that 5% will originate from the south via US 17, and 5% will originate from the north via US 17 with 90% of the passengers originating via I-26. Based on past cruise experience, however, about 15% of the passengers will remain on the Peninsula overnight at local accommodations. The transportation analysis assumes the following distribution of arriving and departing vehicles: 20% via Calhoun Street to/from the rest of the Peninsula and US 17 to the south, 5% to US 17 to/from the north, with the remainder to/from I-26 using East Bay Street. Wayfinding signs will be used to direct traffic to use Concord Street to access the terminal.



Routes for cruise ship passengers

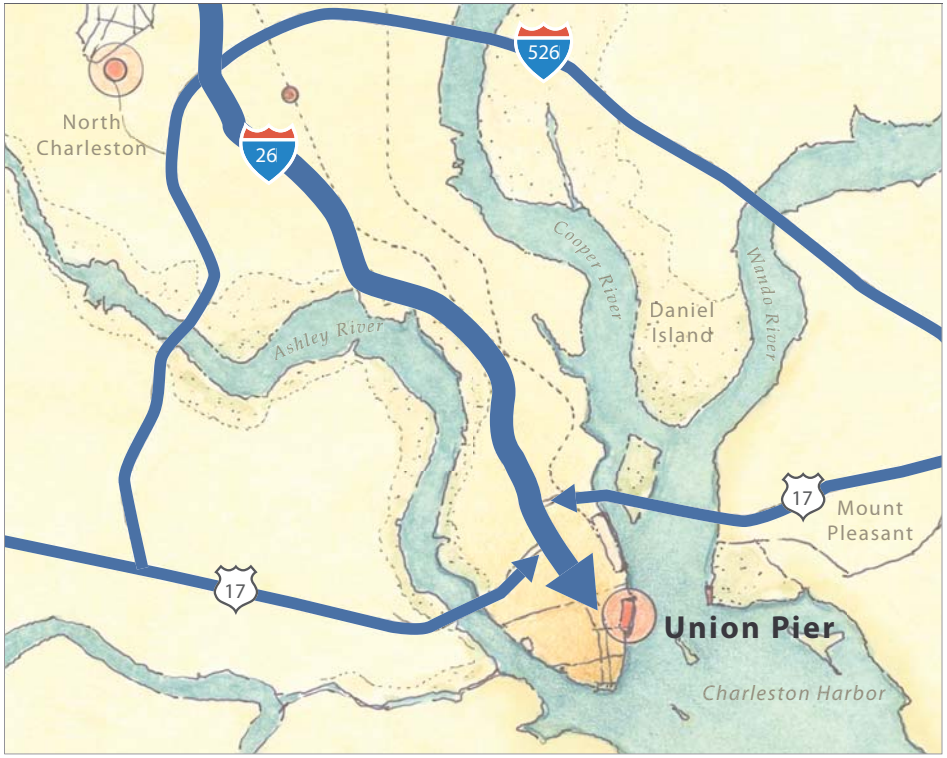
Wayfinding signs for cruise ship passengers

TRANSPORTATION ANALYSIS

Study Area

The study area for the transportation analysis evaluates the following intersections:

- East Bay Street and Market Street
- Washington Street and Laurens Street
- East Bay Street and Calhoun Street
- Washington Street and Calhoun Street
- East Bay Street and Chapel Street
- Morrison Street and US 17 Off-Ramp
- Morrison Street and I-26 On-Ramp
- Morrison Street and I-26 Off-Ramp.



I-26

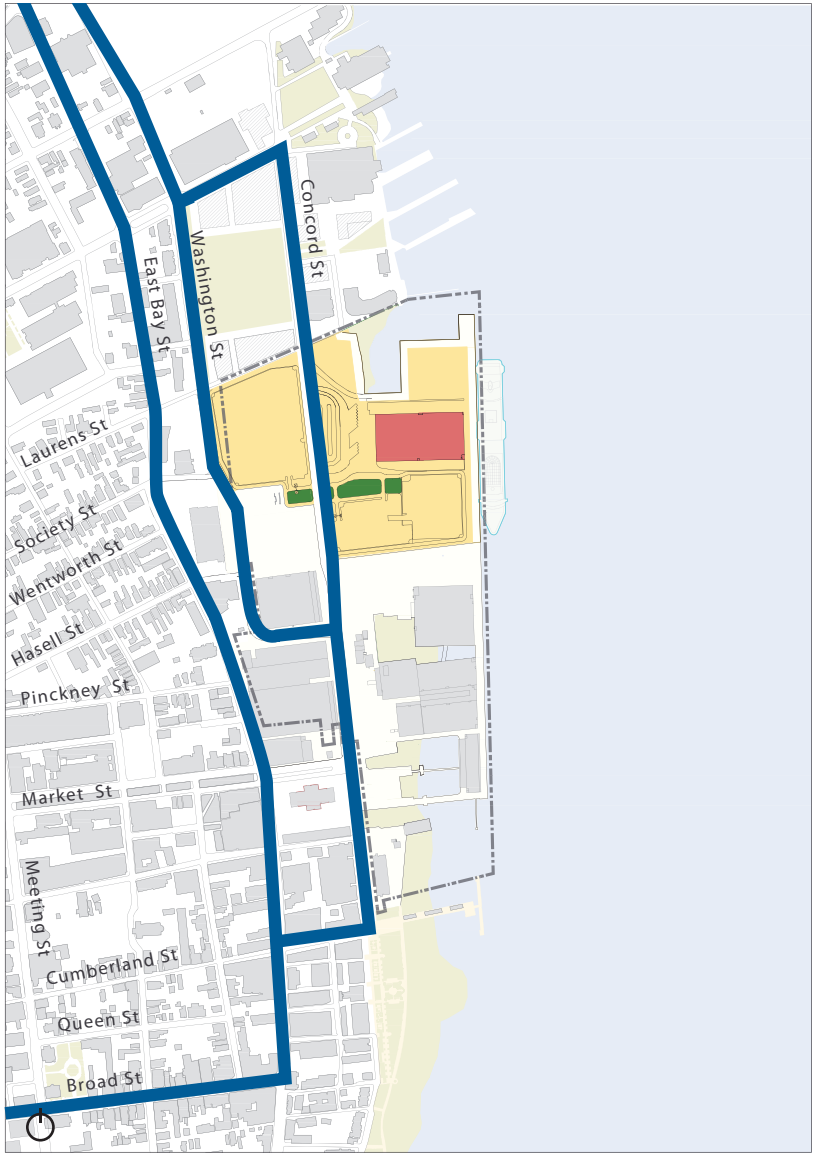
TRANSPORTATION AND TRAFFIC

The new cruise ship terminal is projected to open in 2012. The transportation analysis evaluates traffic conditions in the opening year and in a scenario projecting growth on the Peninsula through the year 2028.

Key findings of the transportation analysis for the Cruise Ship Terminal include:

- Neighborhood impacts are expected to be negligible.
- The eastbound approach of Chapel Street and East Bay Street will require reconfiguration of lanes and retiming of the traffic signal.
- In 2028 background conditions, the intersection of Calhoun Street and East Bay Street will need lane re-striping and traffic signal timing and phasing changes.

It is expected that there will be limited neighborhood impacts as a result of the Cruise Ship Terminal. The cruise ship passengers are instructed to travel using three distinct paths depending on how they access the site. In addition, the facility is designed so that cruise ship traffic will not queue on city streets.



Local access

DASH Shuttle

Carriage

DASH routes

Proposed DASH route extension

Existing DASH stop

Proposed DASH stop

Carriage routes

Proposed carriage routes extension

Proposed carriage pick-up

Transit Routes

IV. CONCEPT PLAN DISTRICT

CONCEPT PLAN

CONCEPT PLAN DISTRICT

Once the Concept Plan team identified the preferred location of the Cruise Ship Terminal facilities, the remainder of the Union Pier site became available for consideration of other uses and activities. The Concept Plan District encompasses that portion of the Union Pier site not required for the terminal building, its ground transportation and drop-off area, its parking and vehicle queuing areas, and its service areas.

CONCEPT PLAN

While the deck constructed over the Cooper River is essential for water-dependent uses, such as port cargo operations and cruise terminal operations, its role with respect to future uses at Union Pier was studied and considered carefully by the Concept Plan team. Even though the 1996 Concept Master Plan for Union Pier Terminal called the deck "an irreplaceable infrastructure resource," it raised questions of the insurability of non water-dependent structures that might be built atop the deck. Nor did the earlier plan consider the repair and upgrade to seismic standards required of the deck or the uncertainty of permitting uses in a critical area.

Upon consideration of these and other issues related to the deck, the Concept Plan team recommends the phased redevelopment of 8.4 acres of deck not required for the cruise terminal operations. In redeveloping this structure, a new waterfront on existing shoreline is revealed. Reversing man's effort to push Charleston's shoreline further into the Cooper River over the last several centuries, this Concept Plan invites the river back to the land.

Perhaps the most important opportunity the redevelopment of the deck affords is the opportunity to restore the historic wharves at the foot of the Custom House, once known as the Public Landing, and create a terminus to Market Street befitting its context and historical importance. Charleston's 1999 Downtown Plan identified this location as one of a number of "nodes" across the Peninsula in need of a focal point. Certainly the restored Custom House Wharves, with their massive granite bulkheads, will serve as a node for the city and for this area.

Concept Plan - an illlustrative concept

Conceptual illustration

CONCEPT PLAN

Conceptual illustration

Conceptual illustration

The restored wharves will anchor a vast "water room" with unfettered views of the Cooper River. The water room, with the Custom House at its center, is formed by the buildings along Market Street, East Bay Street, and the row of buildings south of the Custom House. Two new development sites to the north and south of the restored wharves complete the room and frame the window to the water.

A new waterfront esplanade and park will line the revealed edge and link to the esplanade of Waterfront Park to the south. On those days when cruise ships are not in port, public access along the water's edge can connect to Wharf Street at the north end of the site, completing a valuable missing link in the waterfront trail along Charleston's urban edges. In this way, the Charleston waterfront will be connected continuously from the Battery to the South Carolina Aquarium.

Locations for civic uses are identified along the waterfront esplanade, either as a site reserved within a waterfront square between Pinckney and Pritchard Streets, or as covered pavilions along the wharf edge. A possible day dock or water taxi stop could be provided at the south end of the wharf. Bennett's Rice Mill façade is preserved in its own park, which could also serve as the location for outdoor performances. This park connects visually to a system of green spaces used to organize the Cruise Terminal facility, thereby visually connecting the façade to the waterfront it once served.

Where possible, existing east-west streets extend into the Concept Plan district, forming a network of walkable development blocks consistent in size with the surrounding context. These streets terminate in connection points to the esplanade or in open views of the waterfront. Concord Street is reconnected from north of Market Street to Laurens Streets and Washington Street is extended to East Bay at Pinckney Street, forming a triangular open space. Washington Street is envisioned as a couplet to East Bay Street, similar to the road network initially proposed in the 1996 Master Plan for Union Pier and again in the recent Calhoun Street East Plan, which is intended to increase capacity within the local area while reducing the burden on East Bay Street.

Concept Plan

URBAN DESIGN DIAGRAMS

SITE ORGANIZATION

The Union Pier Concept Plan is comprised of one neighborhood (an extension of existing neighborhoods) designed and sized to be walkable within five minutes from center to edge or within ten minutes from edge to edge. In addition, the entire Union Pier Concept Plan site is within a five minute walk of the City Market and the Custom House Wharf and within a ten minute walk of King Street. Conversely, the connection to the existing city fabric extends the existing neighborhoods to the water and its planned public access within a comfortable walking distance. As the Charleston Downtown Plan recommended in 1999, the Union Pier Concept Plan "is envisioned as an extension to the existing downtown residential character - . . . and reinforces the priority of housing development on the lower peninsula."

By employing good urban design principles, compact development within the site will promote regional sustainability. Relieving development pressure on the Peninsula by concentrating growth at this infill location focuses development where existing infrastructure capacity is in place. The plan reduces automobile dependence by placing public amenities within a comfortable walking distance, provides a compact street and block layout with street trees to engender a comfortable walking environment, and promotes a mix of uses to foster community livability and transportation efficiency. Opportunities to extend the West Ashley Greenway regional bike path and provide shared lanes within the street grid will expand access to multi-model options for the Peninsula resident.

Two-Way Residential Street

Public Esplanade

Walking Distances - a five minute walk is typically an area within a 1/4 mile radius

CONCEPT PLAN DISTRICT

PUBLIC REALM

The public open spaces of our cities provide amenities for residents, workers, and visitors. The extension of Charleston's public realm at Union Pier consists of inviting neighborhood streets which connect to existing neighborhoods, a series of neighborhood parks along Washington and Concord Street - each defined by a significant historic structure or the opportunity to celebrate the waterfront history, and the extension of a public waterfront walk from the north end of Waterfront Park to the Maritime Center and the South Carolina Aquarium. An emphatic directive of the Charleston Downtown Plan's vision for the Cooper River Waterfront, the waterfront walk provides opportunities for public interaction as well as interactions with the landscape of the river and marsh. As one walks from Waterfront Park north to Union Pier, one will encounter a number of public open spaces varying in width and scale which accommodate both passive and active recreation. In addition, the waterfront walk will allow an extension of a regional bike path to continue along the water's edge. While the connectivity of the waterfront walk is key to providing north-south access at the edge of the Peninsula, the termination of Market Street at the Custom House Wharf creates a historically significant new gathering space, overlooking the harbor which celebrates the coming together of the working waterfront with the city proper. This unique east-west street of market buildings and local crafts brings the legacies of the harbor to Charleston's heart at a street of Meeting. Nowhere else in this country is there such a short, direct and meaningful connection between the edge and the water; an urban gesture that best illustrates the meaning and purpose of Charleston's public realm.

Public Open Space and Public Realm

URBAN DESIGN DIAGRAMS

VIEW CORRIDORS

A peninsula is defined by its center and edge and Charleston is not an exception to that rule. However, for decades the center of Charleston has been cut off from large portions of its edge which have been dedicated to industrial uses. Contemporary cities are finding ways to return to a form which was successful for centuries; one where private and public access to the water can happen alongside one another, or as is the case at Union Pier on days when there will not be a cruise ship in port, private and public can also co-exist. Providing view corridors to the water's edge reinforces the city's connection of its center to its edge.

As explained in the Charleston Zoning Ordinance, the extension of streets towards the Cooper River from East Bay Street should also extend, and not block with structures, the view corridors from East Bay Street to the river.

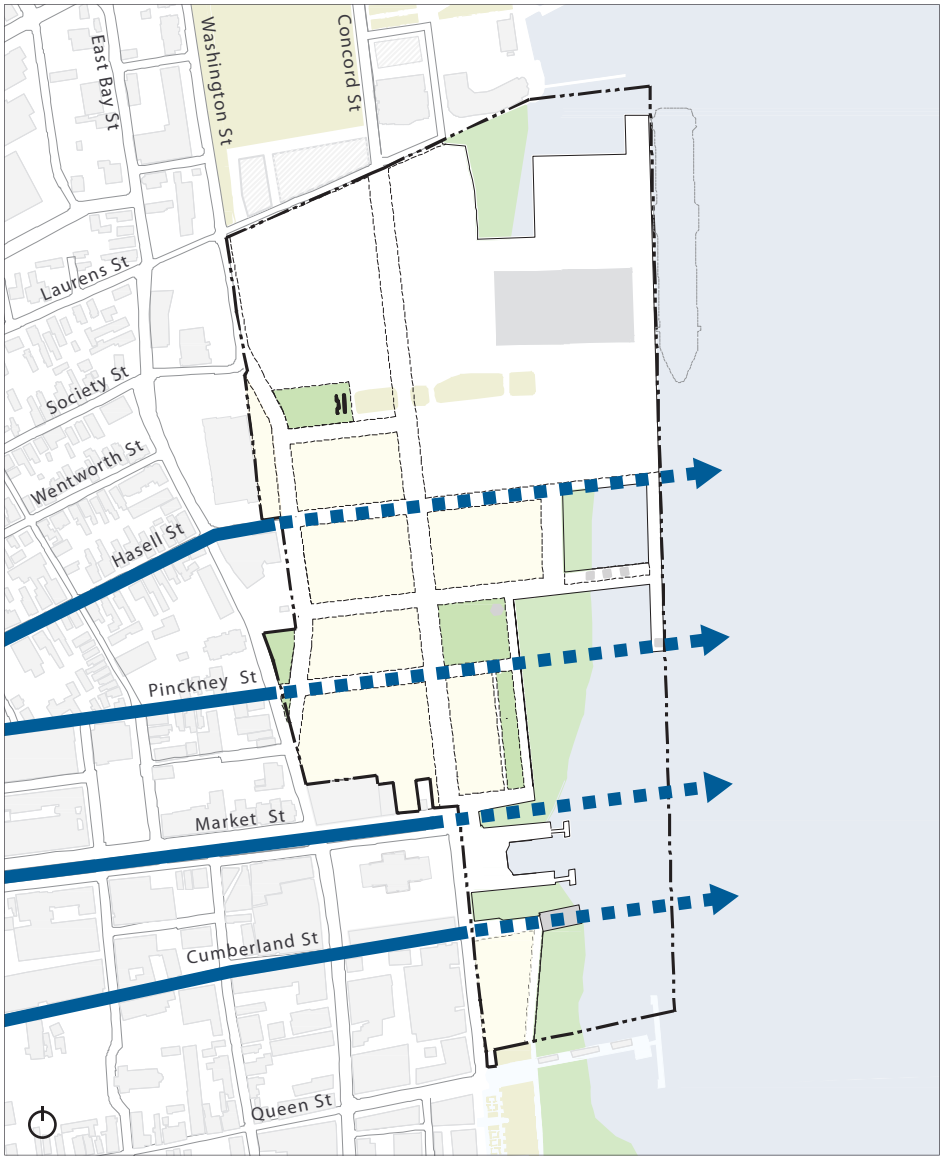
As described in the map on the following page, the Union Pier Concept Plan is organized by a street and block plan formed by extending the existing street fabric to the Cooper River. Hasell, Pinckney, and Market Streets extend beyond East Bay Street and terminate with views of the water. In addition, Pritchard Street within the Union Pier plan does not extend into the city, but the plan preserves its view of the river as well. The Concept Plan also proposes that Cumberland Street terminate as it currently does at the existing Fleet Landing restaurant or a similar establishment housed within the 1942 former Navy building.

ARCHITECTURAL FEATURES

Architectural features may be treatment of massing, windows or other details on a building that is distinctive in order to signify and enhance a prominent location. These elements focus attention through special articulation at certain corners or vista terminations. Architectural features may have additional height (inhabited or uninhabited) for emphasis, subject to applicable height limits. Architectural features may utilize special massing, roof forms, windows, window patterns, entrance portals, balconies, bay windows, or other architectural devices to achieve emphasis.

Architectural feature: frontage

Architectural feature: corner



View Corridors

Features: Corners and Frontages

URBAN DESIGN DIAGRAMS

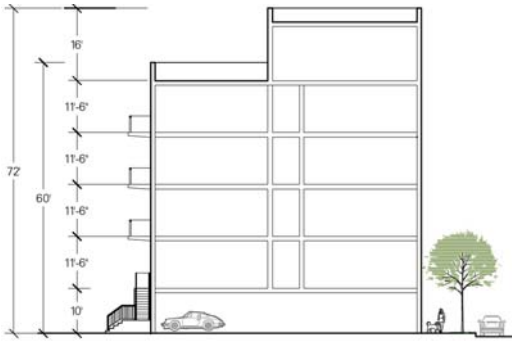
BUILDING HEIGHT

Generally, building walls should be no taller than 60', exclusive of elevator or mechanical penthouses. This height will allow for four habitable floors above any required FEMA flood elevation. Building heights should be varied in keeping with the context of the city's varied skyline. Heights are measured as the vertical distance from the adjacent curb to the top of parapet or to the mean height level of a sloped roof (between the eave and the ridge).

BENEFITS OF 60' HEIGHT:

- Greater variety in heights and roof profile
- More appropriate floor to floor heights
- Piano nobile (second floor of building/first floor of living) allowed a greater floor to floor height
- Greater variety in roof forms and shapes

RECOMMENDED ALLOWABLE BUILDING HEIGHTS AND RECOMMENDED FLOOR TO FLOOR HEIGHTS



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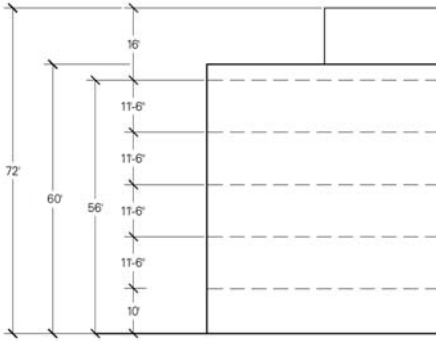
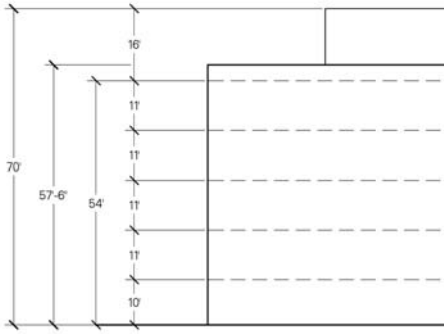
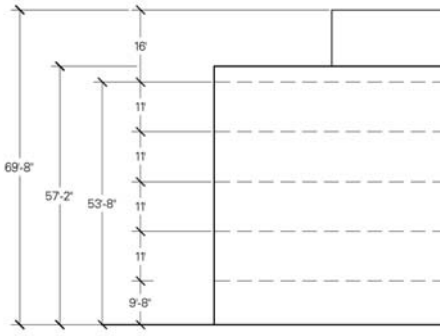


Elevation

Height Case Studies



Typical Floor to Floor: 11' - 0"



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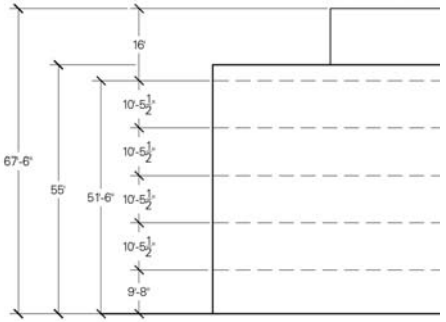
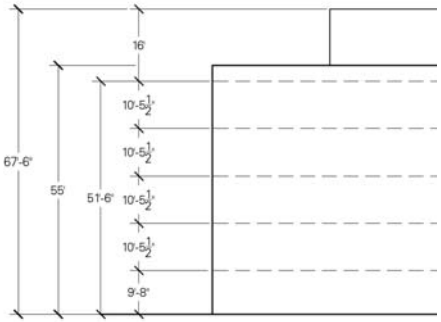


Typical Floor to Floor: 10' - 6"



Typical Floor to Floor: 10' - 5 1/2"

BONUS FLOOR

Another way to preserve a varied skyline and a variety of heights at Union Pier, in keeping with the context of the city, is to allow some opportunities for habitable penthouses above the top floor of the building. Portions of buildings within the Bonus Height Zone may be higher than the typical building height. These zones are indicated on the map to the right and are located along major streets or parks. The heights can be no greater than 72', are limited to 40% of a building's footprint, and when the building wall of the bonus floor is built along primary or secondary frontage, the maximum uninterrupted length should be 60'. Heights are measured as the vertical distance from the adjacent curb to the top of parapet or to the mean height level of a sloped roof (between the eave and the ridge). Heights are exclusive of elevator or mechanical penthouses.

Penthouse and roof terrace

Height Overlay Diagram

Zones for potential bonus height

URBAN DESIGN DIAGRAMS

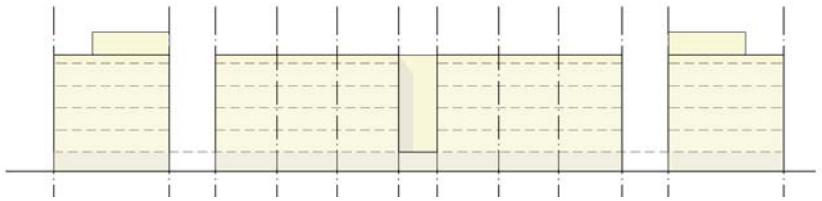
BUILDING MASSING

Monolithic buildings are not in keeping with the scale, look, and feel of the Peninsula. Devices such as vertical breaks, variation in height, composed roofscapes, and a coordinated range of details should be employed to help reduce the apparent mass of large buildings and articulate the architecture.

Building walls should not exceed 120′ in length without a minimum 5′ wide and 5′ deep vertical plane change to help maintain an incremental urban fabric visually, even though blocks may be larger. The plane change must occur from the highest floor and may stop at the base level (flood elevation level) or may continue to the ground. Larger buildings or building on entire blocks should be articulated to appear as a collection of smaller buildings, each of which appear to have a longer and a narrower side.

MASSING BREAK

Major massing breaks within individual building forms should have significant vertical height difference (i.e., one full story) to ensure these breaks are perceived from the street level.



Massing Breaks

BUILDING PLACEMENT/FRONTAGE

Buildings should be placed on or as close to the front property line in order to define edges of streets and open spaces. Additional recommendations for frontage conditions which promote the vitality of the ground level within V-zones are included later in this section.

Building orientation should be predominantly east-west in keeping with the historic fine-grain east-west fabric of Charleston and to maximize the opportunities for passive cooling with natural ventilation.

STOOP

Stoops or porches can be provided when buildings are set back a minimum distance from the property line. Elevated stoops or porches can be used to provide direct access to the sidewalk from individual units above, which provides presence on the street while ensuring privacy for the first habitable level use.

Vertical proportions, articulated base, middle, top

Massing breaks allow for interior courts

FORECOURT

A forecourt, or a courtyard in front of the building, is created when the building facade is aligned closely with the property line and a central portion is set back. Forecourts can be used to accommodate the change in level with stairs and terrace areas which are set back from the property line. The forecourt provides both the opportunity for a massing break within the building's frontage and an active entry point for a building on two levels (direct at-grade access into the building and stair access to an upper level lobby) which contributes to a more active street. A forecourt may also be suitable for vehicle drop-offs.

LOBBY

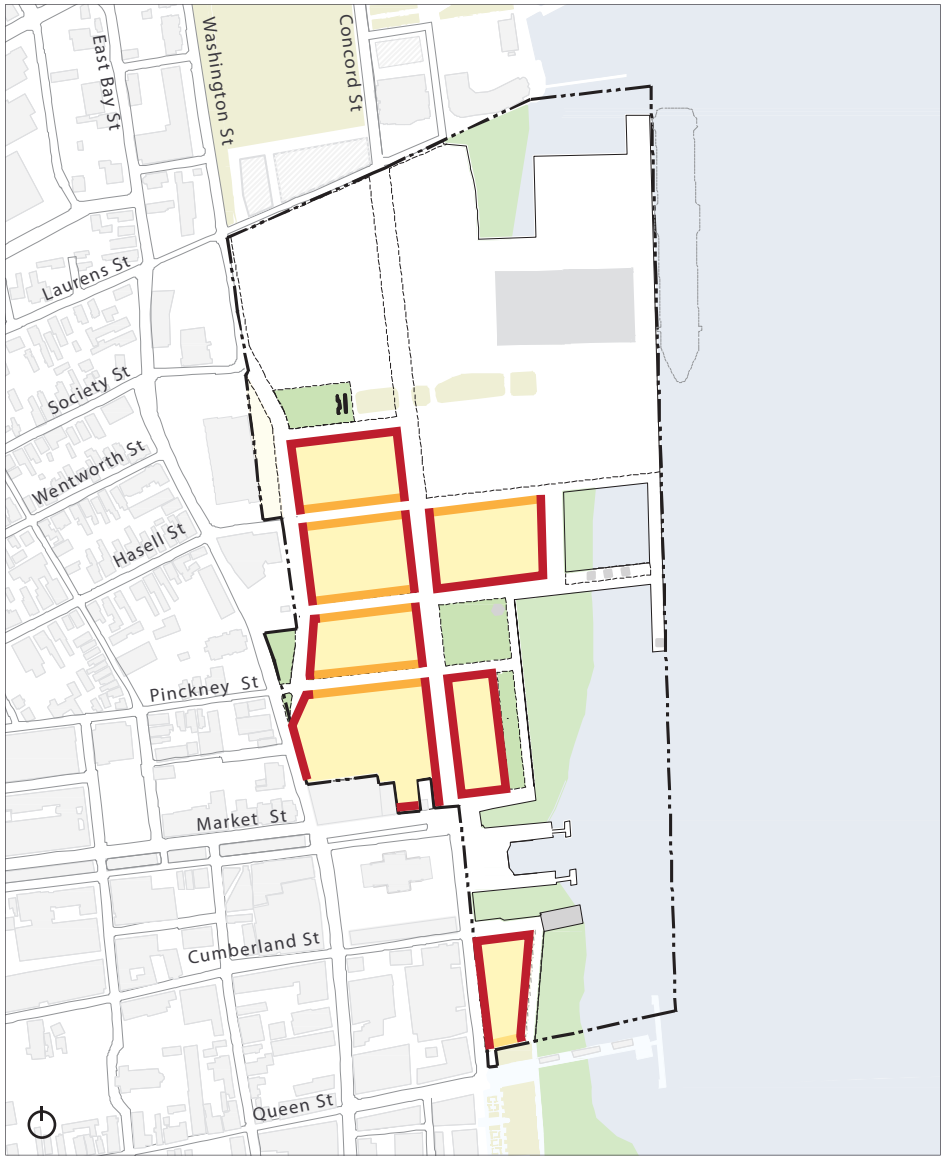
Lobbies can be located within the ground floor of a building situated in a VE-Zone. Lobbies should open directly onto the street and should also whenever possible utilize a double height volume to signify the presence of the lobby on the building façade. The vertical circulation between the ground floor and upper floors can be provided within the building.

GALLERY

A gallery is a cantilevered shed or lightweight colonnade overlapping the sidewalk and attached to the building facade, which is aligned closely with the property line. Galleries along the exterior wall of a building can provide visual interest, a shaded walkway, and accommodate outdoor dining activity at the second level which will create a more active building frontage.

SHOPFRONT

A shopfront is a portion of the building facade with considerable glazing on the sidewalk level and an awning that overlaps the sidewalk. Typically utilized for ground floor retail, a shopfront should be used to create opportunities for vendors to provide temporary seating or display areas for retail uses above. Providing activity within a shopfront ground floor will contribute to a more active public realm.



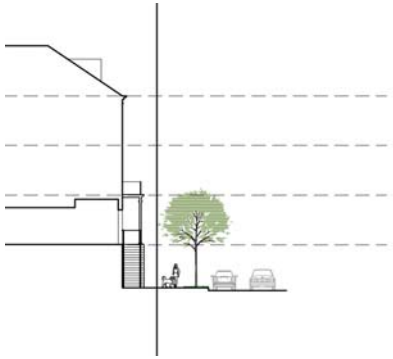
Street Frontage Diagram

Primary frontage

Secondary frontage

URBAN DESIGN DIAGRAMS

Stoops



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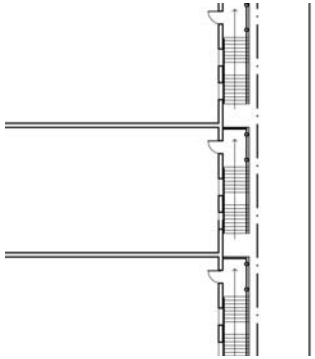
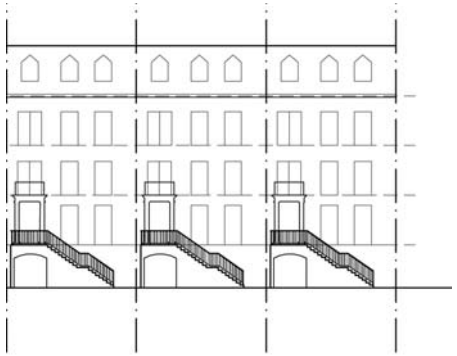
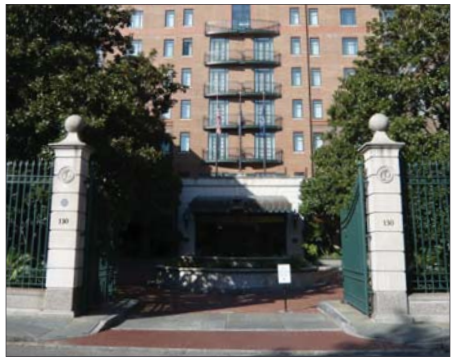


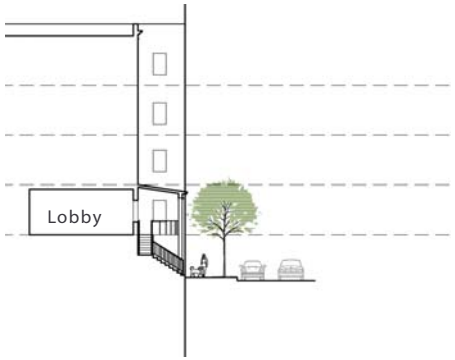
Plan



Elevation



Forecourt



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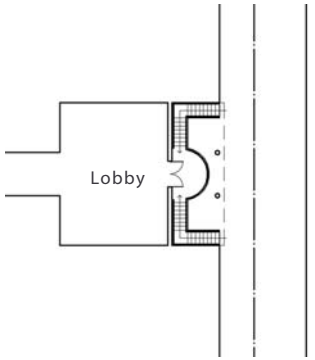
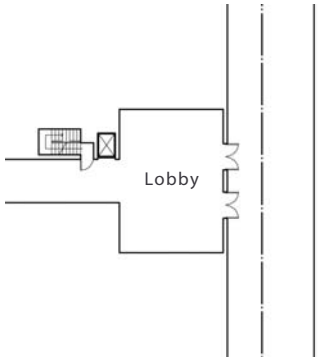


Plan

Elevation

Lobby

Section

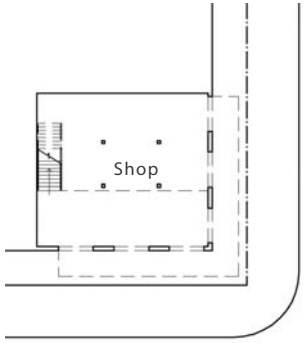


Plan

Elevation

Shopfront

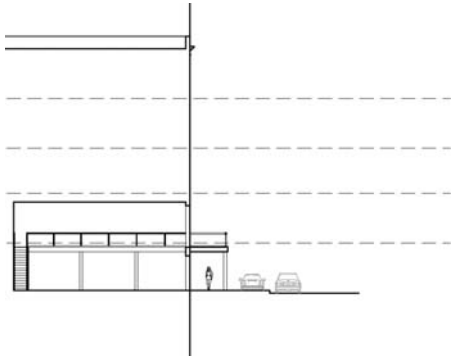
Section



Plan

Elevation

Gallery



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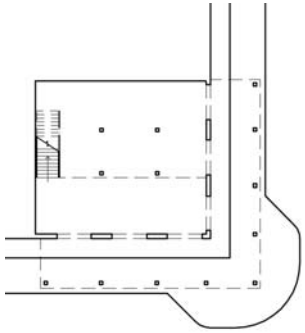
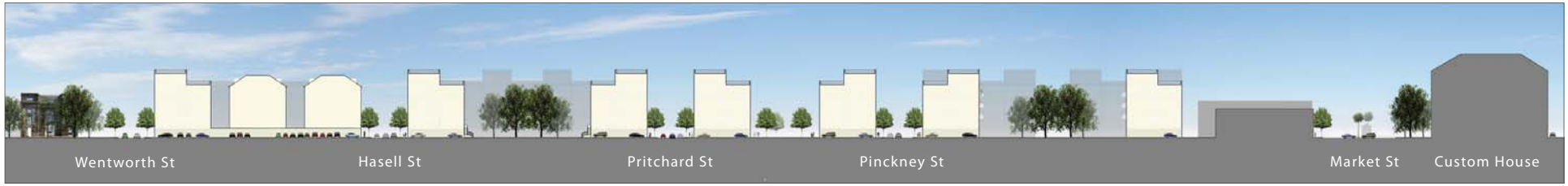


Plan

Elevation

URBAN DESIGN DIAGRAMS



North-south illustrative site section

East-west illustrative site section

SITE SECTIONS

The north-south section above is an illustrative example of the breadth of the Concept Plan area from its northern extent at the Rice Mill Park to its southern extent at the historic Custom House. The east-west site section extends from the public esplanade at the Cooper River to the interior edge of the Concept Plan at East Bay Street. Typical blocks are sized to provide for the dimensional requirements of building typologies and parking structures within the blocks. Both site sections illustrate the relationship between the street and block as well as the relationship of a block's structures to the block's interior private open space.

Private open space within development blocks is encouraged. The Concept Plan team also encourages the private open space maximize pervious area so that larger trees and courtyards, sideyards, and gardens more typical of the Peninsula may occur. The limits of the ground floor uses due to FEMA regulations and the use of the ground floor for parking may limit the potential for pervious areas within the development blocks. However, the use of green roofs and other sustainable building and site design strategies is encouraged.

Mid-block passages that are open to the public and consistent in character with Charleston's pedestrian alleys are encouraged.

FAÇADE COMPOSITION AND ARTICULATION

Buildings should employ proportioning devices, such as a strong base, middle section, and a defined top through the use of horizontal expression lines and material changes; blank walls should be discouraged. Facades should be organized into vertically proportioned bays through fenestration patterns, plane changes, entrance locations, roof articulation, and other devices. Proportioning and articulation of the building should respond to, and express the type of use or unit type behind the facade.

Expression lines are horizontal elements on the facades of buildings used to differentiate between the base, middle and top of buildings. They emphasize a massing transition; or unify different buildings along a public frontage. Expression lines may employ elements such as cornices, shading devices, moldings, stepbacks, or a change of material or color.

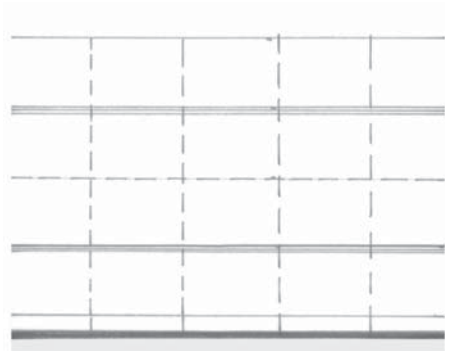
Building materials should reflect the same high quality palette consistent with the character of the Charleston Peninsula.

OPENINGS

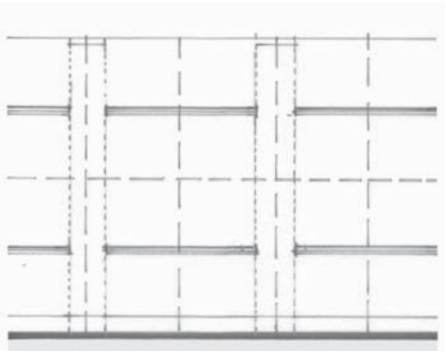
Regularized placement, proportions, and organization of windows, doors, and balconies are encouraged as they are applied to individual buildings. The use of architectural elements such as bays, porches, loggias, and shading devices can add interest to building facades, aid in relating the scale of any building to human dimension, and help break down the scale of large building blocks. Vehicular entries should be integrated architecturally into the building facade.

ROOFS

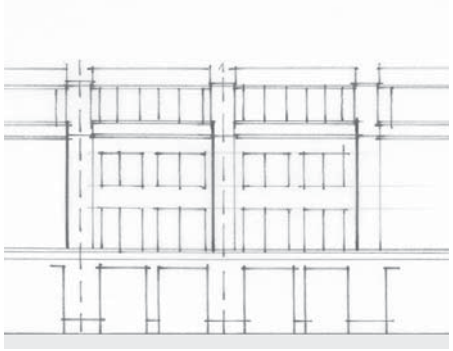
A variety of roof styles should be employed to ensure the varied skyline of the city. A variety of roof elements including tight eave overhangs, deep overhangs, cornices, exposed rafter tales, parapet walls, corbelling and other eave treatments or chimneys, dormers, lanterns, monitors, or other roof-top elements which give the buildings character should also be employed in the design of buildings. The appearance of the roof from above and the screening of rooftop mechanical equipment should be



Continuous Expression Lines:
Base, Middle, Top



Broken Expression Lines:
Base, Middle, Top



Example of Vertical Expression:
Facade Articulation

Example of Vertical Expression:
Fenestration

Garage Entries

Garage Entries

considered. Uniform and Modular Green Roof systems and designs that facilitate passive solar design, provide natural light to building interiors, or provide surfaces appropriate for energy generation should be used.

ALLOWABLE ENCROACHMENTS

Where buildings are setback from the Right-of-Way, allowable encroachments into the setback area may include:

- Stoops, porches, steps, and universal access ramps
- Marquees and canopies
- Decks and balconies
- Arcades
- Terraces
- Bay windows
- Awnings, patio covers, and other sun-control devices
- Arbors, trellises, and pergolas
- Architectural projections (eaves, cornices, moldings, gutters, etc.) and chimneys
- Walls, Fences, and gates
- Outdoor Seating and Merchandise Display
- Signs (including blade signs, awning signs, etc.)
- Flagpoles
- Bicycle Racks

FENCES AND WALLS

Fences and walls could play an integral role in developing the neighborhood character of Union Pier in the context of Downtown Charleston. Fences and walls in keeping with the material quality of the historic precedents in the neighboring communities would contribute to the quality of the neighborhoods at Union Pier. Fences and walls may be located along the public right of way.

Allowable Encroachments

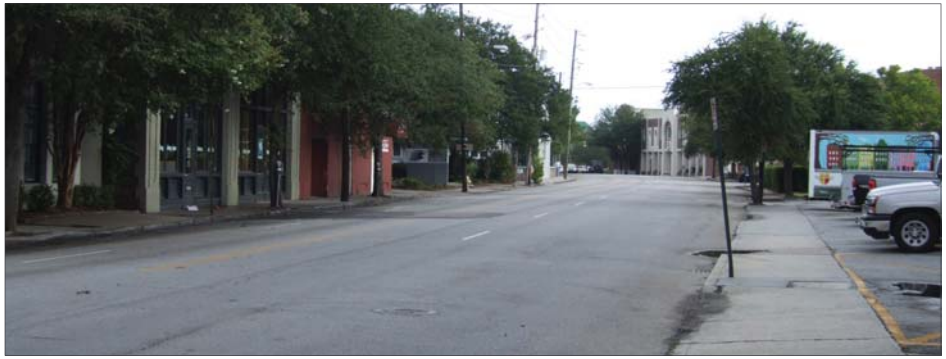
Allowable Encroachments

Fences and Walls

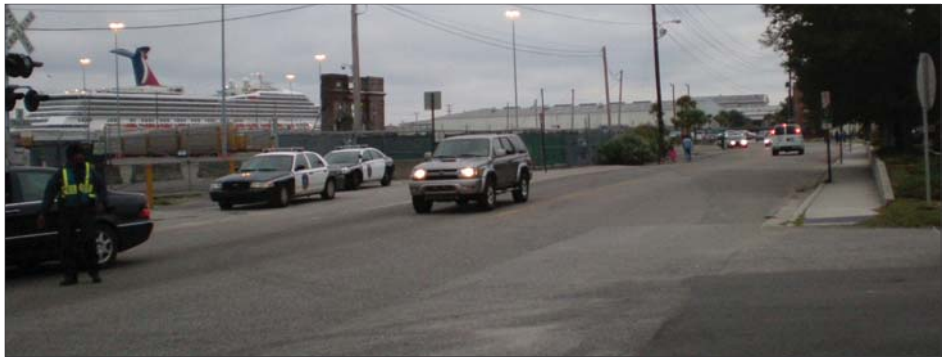
TRANSPORTATION GUIDING PRINCIPLES

Planning for the Concept Plan area is directed by a series of guiding principles. These principles focus on integrating the Concept Plan area into the historic fabric of Charleston, reconnecting multi-modal access to an area once thought inaccessible or undesirable, and allowing for a new cruise terminal and development while improving the future traffic flow into and out of Charleston. The principles include:

- Re-establish the historic grid of streets and pedestrian-scaled blocks in Charleston
- Provide pedestrian, bicycle, and vehicle access to the waterfront
- Provide multiple route choices for destinations within the Concept Plan area
- Provide a "park-once" environment allowing people to visit multiple destinations by walking
- Provide an efficient north-south thoroughfare system for vehicles without compromising pedestrian access to the Concept Plan area



East Bay Street



Washington Street

Concord Street

TRANSPORTATION

PROPOSED TRANSPORTATION IMPROVEMENTS

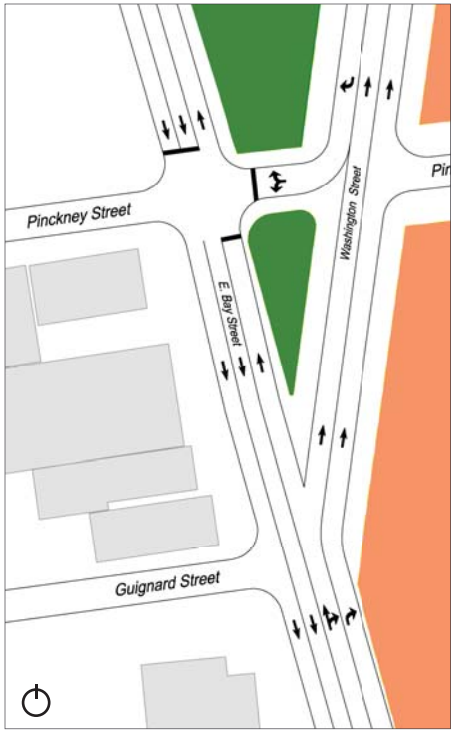
This section describes the transportation system improvements proposed as part of the Concept Plan.

CREATING MORE OPPORTUNITIES FOR NORTH/SOUTH TRAVEL

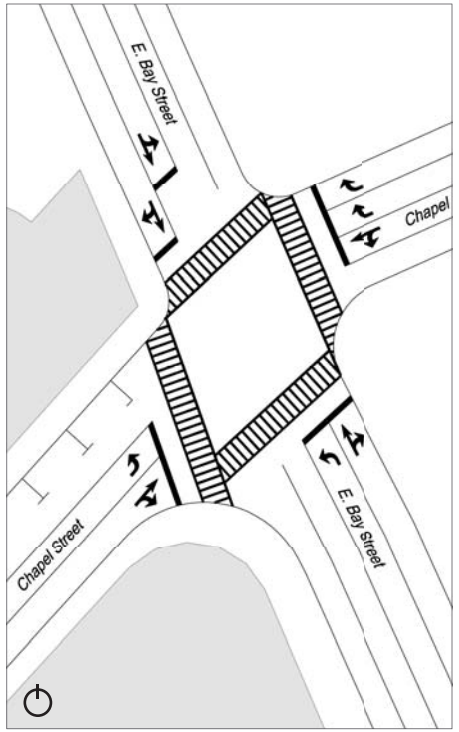
The Concept Plan creates two major improvements to north-south travel. Building from the concept presented in the "Special Area Plan – Calhoun Street-East/Cooper River Waterfront," this Concept Plan connects Washington Street to East Bay Street just south of Pinckney Street and creates a quasi one-way couplet. A one-way couplet is a pair of one-way streets, approximately one block apart, that operate as a single thoroughfare. Couplets are used to increase capacity without widening existing streets. In this concept, the two streets that would form the couplet (East Bay Street and Washington Street) would remain two-way streets, but each would emphasize its capacity in one direction. East Bay Street would be converted to two southbound travel lanes and one northbound lane with one lane of on-street parking. Washington Street would become two lanes northbound and one lane southbound with on-street parking on one side of the roadway. Supplementing the capacity of the East Bay Street/Washington Street couplet, Concord Street would be extended between its two existing sections. This will create two additional north-south lanes for traffic.

The intersection of East Bay Street and Washington Street would be configured as displayed to the right. It is expected that the intersection of East Bay Street and Pinckney Street would be signalized allowing left and right turns from southbound Washington Street onto East Bay Street. South of this intersection, northbound Washington Street traffic would flow unrestricted from East Bay Street. East of this intersection, Pinckney Street would be extended as a two-way street providing access to future private development and future public development which could include a City of Charleston owned and operated parking garage. Due to the proximity to the East Bay Street and Washington Street intersection, the intersection of Pinckney Street and Washington Street would operate as a right-in, right-out intersection.

The proposed configuration of East Bay Street and Washington Street would move a majority of the northbound through traffic from East Bay Street to Washington Street, making East Bay Street more of a neighborhood street than it is today. The new northbound Washington Street traffic would join back with East Bay Street at Chapel Street. Since this will increase the number of right turns from westbound Chapel Street to northbound East Bay Street, the improvements displayed below are proposed at the intersection of East Bay Street/Chapel Street at buildout of the Concept Plan area.



Proposed Intersection at Washington and East Bay Streets



Proposed Intersection at Washington and Chapel Streets

RESTORING THE HISTORIC STREET GRID

The Concept Plan restores the street grid east of East Bay Street. This will help facilitate connectivity for all modes within the city, and improve access to the waterfront. New east-west street extensions include Wentworth Street, Hasell Street, Pritchard Street, and Pinckney Street.

The street hierarchy establishes primary and secondary frontages for each of the blocks defined in the Concept Plan. Primary frontages are those facing major streets and parks. As is typical on the Charleston Peninsula, the primary roadways run north-south and the secondary roadways run east-west.

Street Type Diagram

Primary Street

Secondary Street

CONCEPT PLAN DISTRICT

TRANSPORTATION

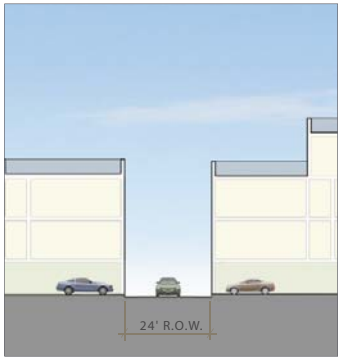
STREET SECTIONS

The following street sections were developed for the Concept Plan. Major streets will have 11-foot travel lanes with 7-foot parking lanes while residential streets will have 10-foot travel lanes with 7-foot parking lanes. All roadway sections will have sidewalks on both sides of the street.

The Concept Plan recommends the proposed street sections shown in the diagrams on the following pages.

The City of Charleston Planning and Design Department has developed and proposed a series of street sections for the City that are generally similar to those presented in this Concept Plan but with smaller lane widths. In addition to the sections presented in this report, the Concept Plan would also recommend the proposed street sections developed by the City of Charleston.

(City of Charleston Draft Ordinance to amend Chapter 54 of the Code of the City of Charleston (Zoning Ordinance): Article 1, Part 3, Section 54-120; Article 8, Part 3, Section 54-831; Article 8, Part 4, Section 54-831 (streetdesignstandards_03032010draft_adh.pdf available at www.charlestoncity.info/shared/docs/0/))



Alley

One-Way Residential Street

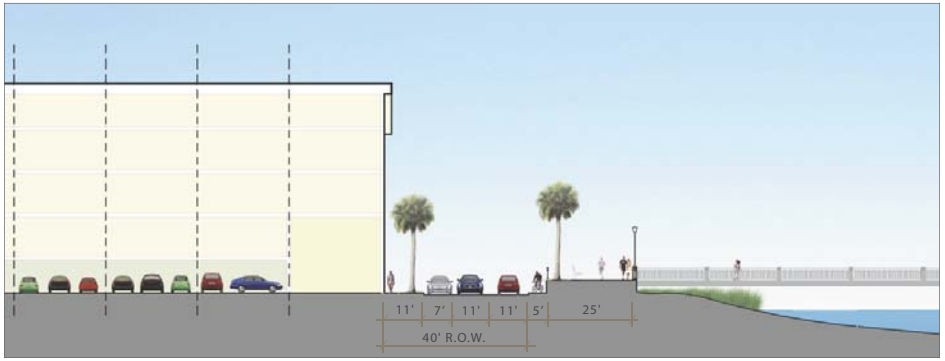
Two-Way Residential Street

In the vicinity of the Cruise Ship Terminal, Washington Street will have two 11-foot northbound travel lanes and one southbound 11-foot travel lane with 7-foot on-street parking southbound. Six-foot sidewalks will be provided on both sides of the street. Adjacent to the sidewalk to the east, fenced from Washington Street, the cruise ship property will begin. Within the cruise ship property there will be an 18-foot queuing lane for arriving passengers adjacent to the parking for the cruise ship passengers; this queuing lane will be separated from the parking area using fencing.

One of the illustrative street sections runs parallel to the waterfront walk esplanade. Similar to the Charleston Battery, the street section allows a five foot sidewalk or planted area immediately adjacent to the esplanade structure.

Washington Street

Concord Street



Park Street

TRANSPORTATION

PARKING

The Concept Plan recommends a "park-once" strategy, where vehicles entering the area park once and walk to multiple locations. For example, hotel patrons will come to Charleston, park their car and walk to various interests for the duration of their stay.

Parking ratios for new development in the concept plan area are based on the following City of Charleston Lower Peninsula ratios:

- Residential – 1.5 parking spaces per dwelling unit
- Commercial Office – 1 parking space per 500 square feet
- Hotel – 2 parking spaces for every 3 hotel rooms

Parking for the residential units will be provided on the first floor of the buildings. Parking for the restaurants and office will be provided within the first floor of the buildings and/or within the public parking system which may include a City of Charleston parking deck. Hotel guests will park in garages at hotel site(s).

ACCESS

The Parking and Service plan indicates the locations of parking within the block and preferred access points from the surrounding streets, on secondary frontages where possible. Service and parking may also be accessed via alleys.

SERVICE ROUTES

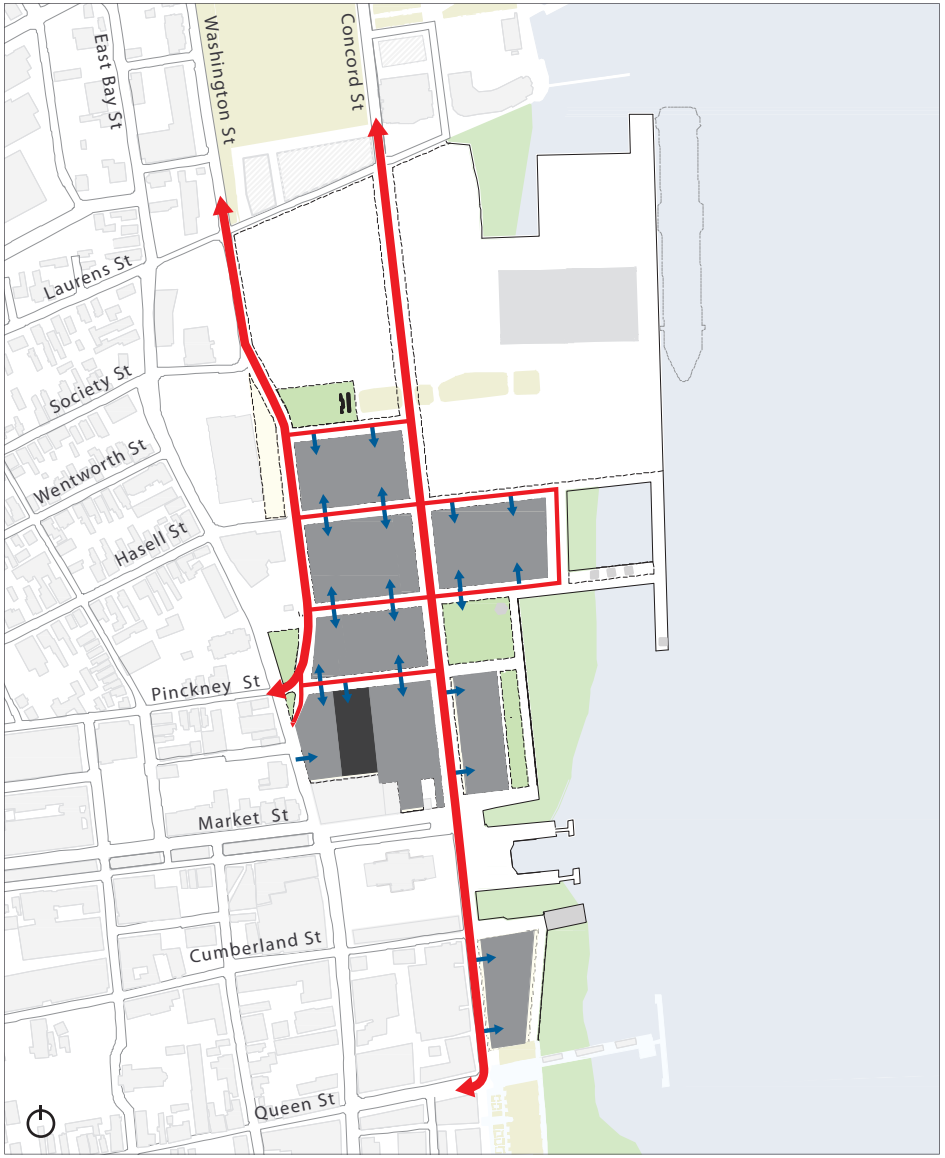
The Concept Plan has been designed to facilitate service vehicles accessing the properties. These service vehicles include garbage trucks, delivery trucks for the hotels and restaurants among others.

Access

Maximum Allowable: 3 curb cuts @ 20' wide each

Maximum Allowable: 2 curb cuts @ 20' wide each

Maximum Allowable: 1 curb cut @ 20' wide



Parking and Service

Service route

Garage Entry

Parking

Potential Site for a City Garage

TRANSPORTATION

PUBLIC TRANSPORTATION

The Concept Plan area is served by various forms of public transportation.

Carriages

Carriage rides are a very popular attraction in Charleston. Carriage routes generally originate around Market Street and travel to various districts within the city. The following figure shows the locations of the existing carriage routes as well as proposed routes through the Concept Plan area.

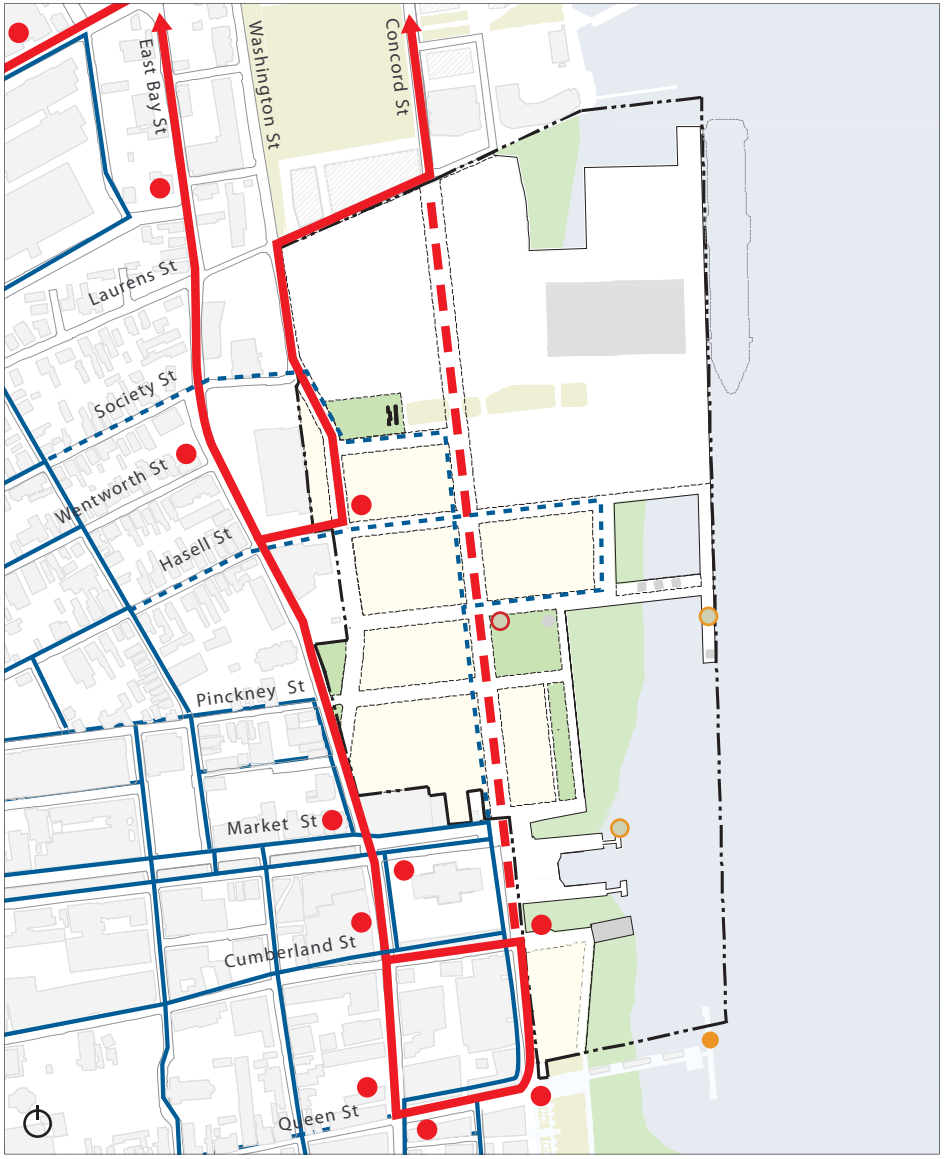
DASH Shuttles

The Charleston Area Regional Transportation Authority (CARTA) runs the four Downtown Area Shuttle (DASH) routes. The existing DASH routes as well as proposed extensions and stops within the Concept Plan area are also shown.

Water Taxi

Water Taxi service is currently offered between Patriot's Point in Mt. Pleasant and the Maritime Center north of Union Pier. A water taxi stop further south on the Peninsula could be accommodated at Union Pier and would encourage greater use of other modes of transport, would bring visitors to the Custom House Wharf, provide visitors with more options for exploring the Peninsula, and add vitality to the Union Pier and Market Street area.

Carriages



Transit Routes

CONCEPT PLAN DISTRICT

BIKEWAYS

A bicycle network is an important contributor to a city's mobility plan. The network proposed connects to and augments the existing and planned bicycle routes within the City of Charleston. The shared bike lanes should be properly marked with "sharrows" and signage for motorists. Bike racks should be planned within the Concept Plan and located adjacent to the bike network to provide convenient bike storage.

The West Ashley Greenway is a regional bike route that connects to the East Coast Greenway (a bike route which stretches from Maine to Florida). The Greenway passes through urban and rural areas and currently links within Charleston at Liberty Square north of Union Pier. The Concept Plan would provide for the extension of the bike route through Union Pier along the public waterfront esplanade.

The Charleston Bicycle Friendly Community Task Force has authored a set of recommendations (May 2009) which include creating policy and standards for connections to future developments. Such standards should be coordinated with the potential for additional bikeways at Union Pier.

Bicycle racks

Water taxi

Bike Network

City bike routes
Proposed Museum Mile Bike Route
Proposed shared bike lanes
Proposed West Ashley Greenway extension

CONCEPT PLAN DISTRICT

TRANSPORTATION

PEDESTRIAN ACCESS

Throughout the Peninsula there are existing sidewalks and paths linking various parts of the city and its green areas. The Concept Plan sidewalks will directly link to the existing pedestrian network. The Concept Plan streetscapes should be designed with a strong pedestrian focus as extensions of the park network. Streetscape amenities include benches and chairs, bike racks, lighting, trash receptacles, street trees, special paving at crosswalks, and designated locations for artwork.

There are key intersections within the Concept Plan where vehicular, bicycle, and pedestrian will interact, creating the potential for conflict points. It is imperative that these intersections be designed to insure safe mobility of transit vehicles, cars, bikes, and pedestrians. Design elements that can raise driver awareness and reduce potential conflicts with other modes include distinctive paving, special lighting, minimizing curb cuts and driveways, and signage to announce pedestrian and bike crossings to motorists.

Pedestrian crossing distances should be minimized and curb radii kept at minimums. On-street parking and narrow vehicular travel lanes also serve to slow traffic and create a safer pedestrian environment.

Providing for the pedestrian will increase the multi-modal capacity of the site.

Pedestrian access

Pedestrian Network

Esplanade

Sidewalk

CONCEPT PLAN DISTRICT

Once the Concept Plan progresses to a Development Plan, early coordination with South Carolina Electric and Gas Company will be an essential step in creating a design in keeping with the vision of the Charleston Peninsula which has been illustrated by the concepts within this Concept Plan. There are existing electric and gas utilities within Union Pier that serve not only Union Pier but much of the surrounding neighborhoods and businesses. Disruption to these utilities due to relocation should be considered.

In addition, opportunities to create a sustainable site by efficient design should be one of the goals for this site. Some methods to obtain these goals are as follows:

- design building envelopes, HVAC units, lighting, hot water heaters and appliances to maximize energy performance
- specify HVAC systems that use no CFC refrigerants
- harvest free energy – Solar panels, windows, wind energy etc
- recover Waste Energy – Exhaust air energy recover, graywater heat recovery, etc.
- solar; thermal, bio-fuel based, geothermal heating, geothermal electric,
- renewable or green-power from off-site

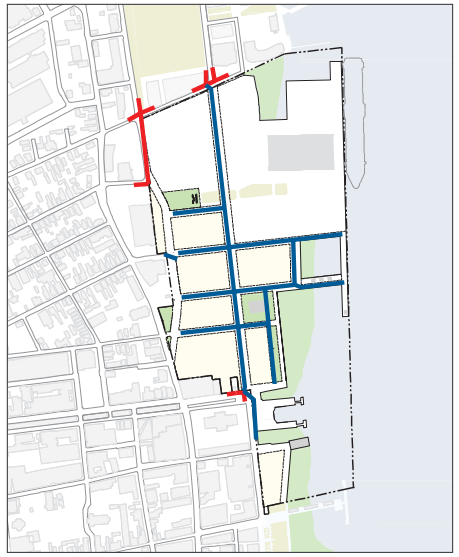
The use of sustainable methods could reduce long term cost and help reduce the carbon footprint for this site.

POWER

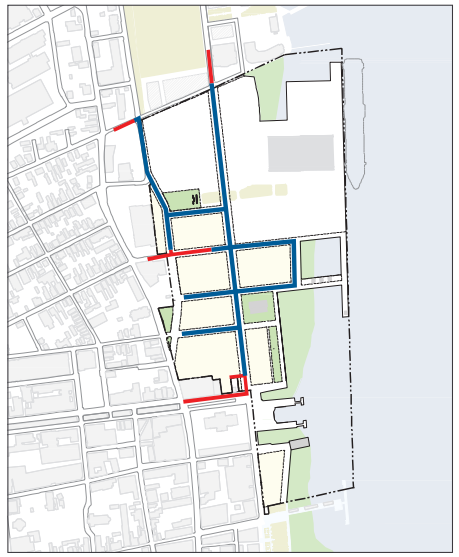
Electricity for Union Pier is provided by South Carolina Electric and Gas Company. Currently electric power serves the existing buildings by means of overhead power. It is recommended that future design relocate all overhead power within the Union Pier site underground and within the future road right of ways. It is further recommended that as the project develops, early coordination with SCE&G regarding availability occur.

GAS

Gas for Union Pier is provided by South Carolina Electric and Gas Company. Currently gas service to the Union Pier site is limited. The existing gas mains are located at the intersections of Market Street and Concord Street, Hassel Street and Washington Street, and Concord Street and Laurens Street. Service to future buildings will be provided by extending new gas mains through the site.



Electric
Proposed underground gas
Existing underground gas



Gas
Proposed underground power
Existing overhead power

CONCEPT PLAN DISTRICT

INFRASTRUCTURE

WATER SUPPLY

Potable System

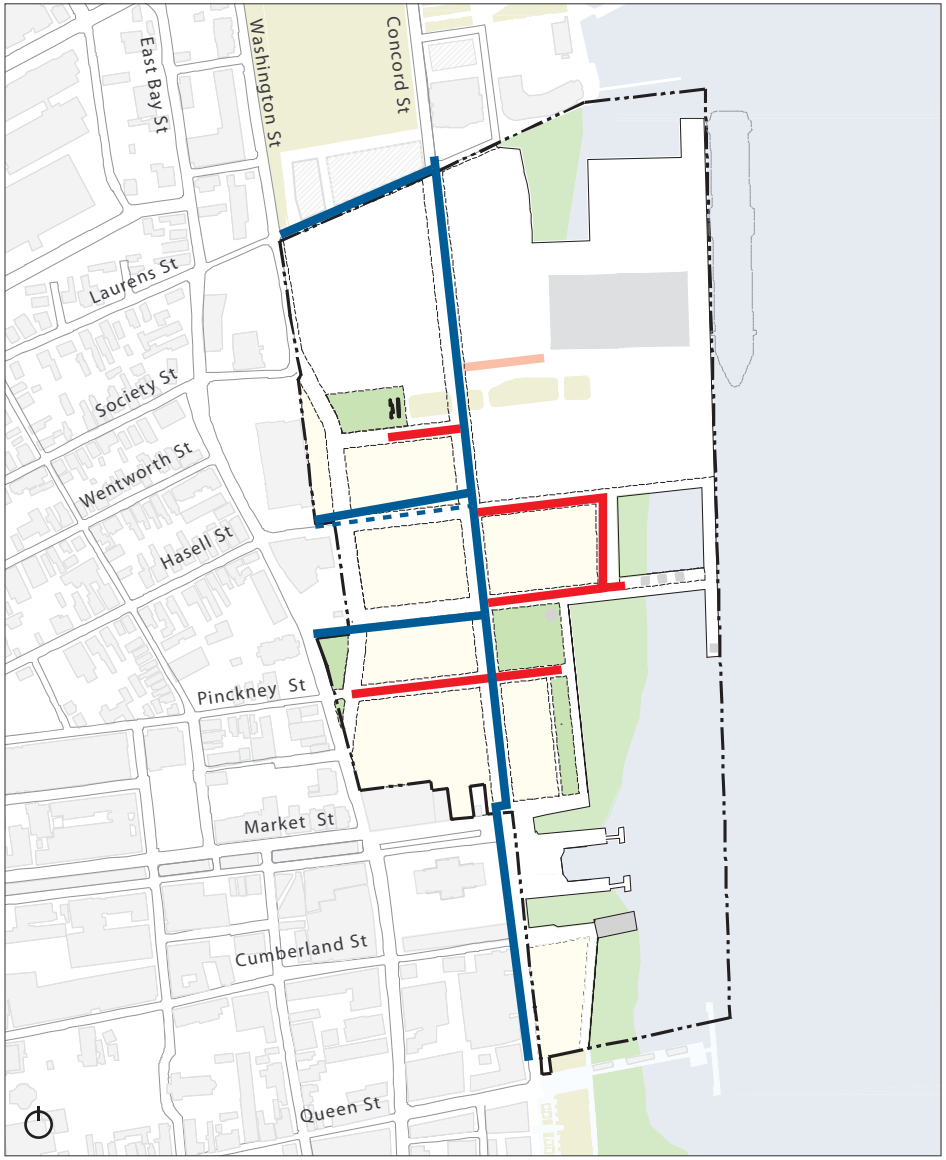
Union Pier lies within the service area of Charleston Water System (CWS). A hydrostatic flow test (conducted December 7, 2009) indicated the pressures in the area were low and the transmission system is currently limited and may need larger mains. These improvements will be completed concurrent with the demand.

An existing 12″ main runs parallel to Concord Street all the way through the entire Port's property to Wharfside Street. There are three existing 12″ mains that connect the 12″ main along Concord Street to Washington Street and East Bay Street. This looped system provides the framework for a portion of the site. Sections of the existing line will need to be relocated to work with the Concept Plan and additional mains will need to be provided to serve the large site plan.

Through the existing and proposed potable water system, fire protection and irrigation water will be provided to this site.

Irrigation

The Concept Plan currently shows several open spaces with the intention that these zones would differ in the amount and types of vegetation requiring irrigation. The undefined specifics make estimations for irrigation difficult at this time; however, it is quite normal for customers of public utilities to use potable water for private irrigation needs. Some planned developments may use sources other than potable water for irrigation of common areas. Many locations use captured stormwater supplemented by well or utility water during periods of peak demand and low rainfall. In addition, vegetation that is drought resistant can be planted to reduce demands for irrigation water. One or a combination of these methods can help reduce long term costs for irrigation fees and promote sustainability within this site.



Water Infrastructure

Existing water main
Proposed water main
Proposed relocated main

WASTEWATER

Sanitary Sewer

Union Pier lies within the service area of Charleston Water System (CWS). CWS has infrastructure in and around the site to allow for points of connection to their sewer system. It should also be noted that all services and associated capacity that is currently provided to the Port property will be credited back to the future development in terms of impact fees.

The existing warehouses located within the Port property are currently served with a series of small pump stations or grinder pumps that force wastewater to the existing gravity lines located on the surrounding sites. It has been determined that the future development would require the addition of a central pump station to handle the future cruise terminal and the future private development. A series of gravity sewer mains would capture the wastewater from this proposed site and route it to the central pump station. The pump station would then pump the wastewater to an existing CWS gravity system.

INFRASTRUCTURE

STORMWATER

Existing Conditions

Union Pier is approximately a 63 acre site located on the eastern side of the Peninsula of Charleston, SC. Union Pier currently drains to the Charleston Harbor and eventually to the Atlantic Ocean.

The Concept Plan area is generally "developed", with existing warehouses to support South Carolina State Port Authority uses. Existing land cover within the Concept Plan area are open parking lots, warehouse buildings, and existing infrastructure to support its intended uses. Approximately 98% of the site is impervious.

The topography of Union Pier is very characteristic of the South Carolina "low country" – with elevations ranging from elevation 5ft to 12ft. In general the gentle relief results in very low slopes in the drainage ways across the Concept Plan area.

The drainage within the Concept Plan areas is a system of existing catch basins and pipes ranging in size and materials. The current system has eight points from which that the pipes directly discharges to the Charleston Harbor (See Attached Existing Storm Drainage Exhibit).

The City of Charleston has been coordinating with the Port for a future drainage tunnel known as the Market Street Drainage project. The drainage tunnel will collect stormwater runoff from the Market Street basin and tie to a drainage shaft at the corner of Market Street and Concord Street. A drainage tunnel connects this shaft, paralleling Concord Street, through the Port's property and discharges to the Concord Street Pump Station located across from Concord Park. The current design for the Market Street Drainage study does not account for any runoff drainage from the Union Pier project area.

Regulatory Context

Applicable stormwater regulations for the Union Pier Concept Plan areas are related to the following regulatory programs:

- Federal Clean Water Act / National Pollution Discharge Elimination System (NPDES) Storm Water Program
- South Carolina Pollution Control Act
- South Carolina Storm Water Management and Sediment Reduction Act
- South Carolina Coastal Zone Regulations
- South Carolina Anti-Degradation Rules
- City of Charleston's MS4 Review

In South Carolina, the South Carolina Department of Health and Environmental Control (SCDHEC) is responsible for administering the state's stormwater management program. In the eight coastal counties, SCDHEC has delegated the stormwater management program authority to the South Carolina Office of Ocean and Coastal Resource Management (OCRM). Recently, as part of the NPDES Phase II stormwater implementation (for small and medium sized municipalities and counties), OCRM has delegated portions of the stormwater management program authority to local jurisdictions (as part of their NPDES municipal separate storm sewer system (MS4) permit). The City of Charleston has delegated NPDES MS4 stormwater programs.

Land disturbing activities (including the construction of roads, residential neighborhoods, commercial areas, etc.) are required to apply for and receive a NPDES Phase II Construction General Permit (CGP). These permits address water quality and quantity using thresholds based on the project's land disturbance footprint, distance to receiving water, and proximity to sensitive areas. Generally, permits are required if a land disturbing project is:

- ≥ 1 acre and not within ½ mile of a receiving water or
- if a project is > ½ acre and within ½ mile of a receiving water.

However, a permit could be required even if the project is ≤ ½ acres and within ½ mile of a receiving water if it meets defined criteria that are outlined in the regulations.

For nearly all acreages of disturbance the regulations require that peak post-development discharge rates from the basin shall be at or below pre-development rates for the 2- and 10-year 24-hour storm events (4.5 and 6 inches, respectively).

The regulations also specify that a "water quality volume" be detained to improve water quality from the site. The thresholds of the "water quality volume" are related to the project's size and relative location to the receiving water body. Projects that disturb ≥ 5 acres and are not within ½ mile of a receiving water body are required to capture and detain on site the first ½ inch of runoff and release that quantity over a 24 hour period. Projects within ½ mile of a receiving water body are required to capture and detain on site:

- the first ½ inch of runoff from the site, or
- the first 1 inch of runoff from the built upon area, whichever is greater.

During construction, larger projects (those > 10 acres and draining to a common point) are required to demonstrate an 80% sediment trapping efficiency for total suspended solids (TSS) for the 10-year, 24-hour storm event.

Additional state stormwater regulations pertain to the further degradation of impaired waters identified in the state's listing of impaired waters (303(d) list). Large scale development projects, those with more than 25 acres of disturbed land which have stormwater discharges directly into an impaired water body via structures or ditches, have the ability to further degrade the quality of that impaired water body. Therefore, additional assurance (in the form of stormwater best management practices (BMPs)) may be required to ensure runoff from that site will not cause or contribute to further degradation of the water body.

Existing Stormwater Drainage

INFRASTRUCTURE

Additionally, there may be certain projects adjacent to some ecologically important or sensitive waters with disturbance of less than 25 acres which will require assurance that water quality will not be further degraded. The concern for water quality degradation pertains not only to runoff during construction, but also after the project is fully built-out.

In addition to the federal and state regulations pertaining to stormwater quantity and quality, additional regulations are imposed by other local jurisdictions – including the City of Charleston.

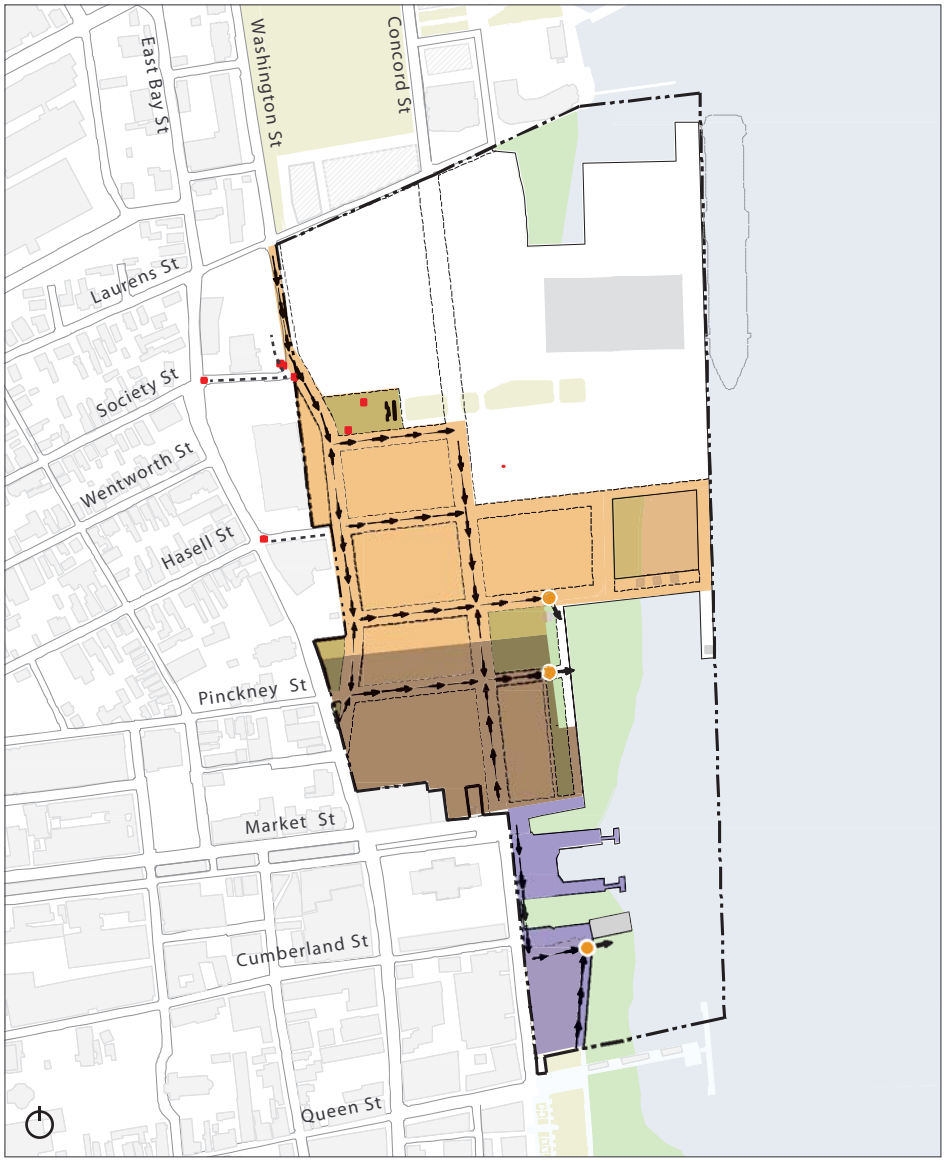
STORMWATER DRAINAGE

Collection and Conveyance

Stormwater runoff from the developed areas within Union Pier will be captured in stormwater conveyance infrastructure of various types – pipes, swales, etc. This infrastructure will be designed to meet the local and state regulations for the particular type of system.

For this site, the collection and conveyance system will be designed as a series of inlets and pipes to collect and convey the stormwater runoff, treat the water for quality standards set forth by the regularity agencies, and discharge to the Charleston Harbor. Natural topography will be used wherever possible to maintain existing drainage patterns.

The proposed system does not connect to the planned Market Street Drainage project. However, it is the recommendation of the design team that any potential availability in the Market Street Drainage system be allotted for stormwater runoff drainage from the Union Pier project area to mitigate existing drainage issues around Union Pier and Washington Street.



Stormwater Drainage

Post-Development Detention

As discussed in the Regulatory Context section above, the peak post-development stormwater discharge rate must be equal to or lower than peak pre-development stormwater discharge rate for the developed areas. The Concept Plan proposes to increase pervious area therefore decreasing runoff rates. Any increased stormwater runoff will be mitigated through the design process, including:

- Using innovative design approaches,
- Maintaining site resources and natural undisturbed areas,
- Employing lower impact site layout techniques,
- Minimizing impervious cover,
- Utilizing natural features for stormwater management, and
- Implementing stormwater BMPs.

STORMWATER QUALITY

The management of potential non-point source pollution (from developed areas within the Union Pier Concept Plan areas is essential for the protection of surrounding receiving waters. Currently, stormwater discharges directly to Charleston Harbor without detention or stormwater quality treatment.

Development within the Concept Plan area will be designed and constructed to maximize natural infiltration (where practical) and minimize site runoff.

Stormwater management practices will be designed to:

- Decrease the erosive potential of increased runoff volumes and velocities caused by land development,
- Remove sediment and other pollutants in stormwater,
- Preserve natural drainage patterns and other hydrologic conditions, and
- Preserve the natural systems that help stormwater quality.

Best Management Practices

Due to the site constraints created by the urban context, traditional treatment methods such as wet and dry detention will most likely not be used. Stormwater quality best management practices that will be considered are listed below.

Non-structural BMPs that may be incorporated into the designs will include (but are not limited to):

- Vegetated conveyance systems,
- Green roofs,
- Critical line buffers
- Disconnected roof top and other impervious area drainage to pervious areas, and
- Natural infiltration (where practical).

Structural BMPs that will be considered for incorporation into the designs will include (but are not limited to):

- Underground Detention Systems,
- Stormwater Wetlands,
- Bioretention Areas,
- Infiltration Trench,
- Pre-Fabricated Control Devices,
- Vegetated Filter Strips, and
- Grass Paving and Porous Paving Surfaces.

Example of a biofiltration planter box

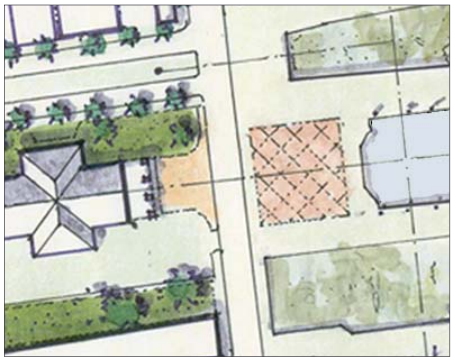
Typical Filterra© layout, tree grates should be consistent with the adjacent street landscape

SPECIAL INITIATIVES

There are four special initiatives, or special areas, within the Concept Plan. Each initiative is tied to the past, present, and the future of the working waterfront and therefore inextricably linked to industry and the residents of Charleston.

The four special initiatives of the Concept Plan are:

- Restoration of historic public landing
- Restoration of the natural shoreline
- Restoration of Bennett's Rice Mill and Creation of Rice Mill Park
- Creation of Pavilion for the History of the Waterfront in Union Pier Park

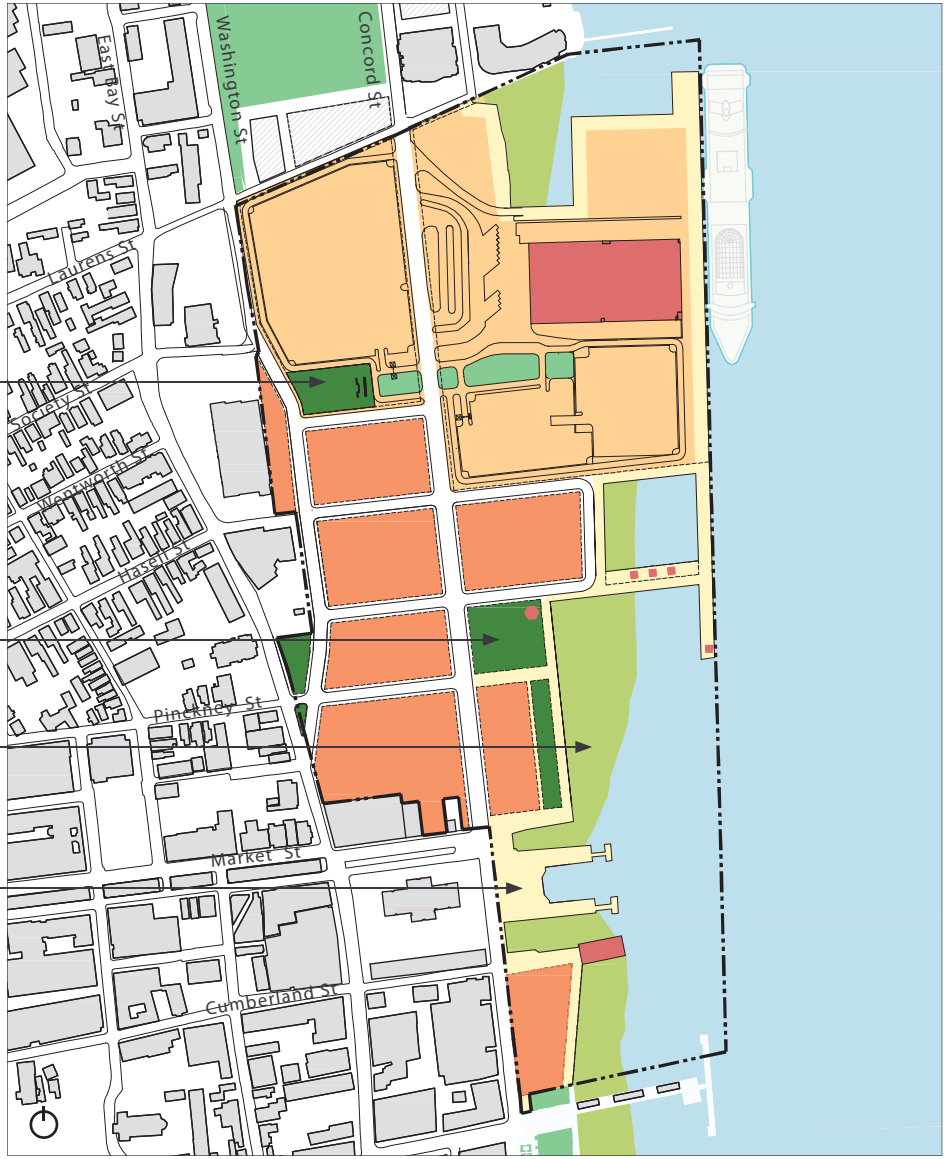


Restoration of Bennett's Rice Mill and Creation of Rice Mill Park

Creation of Pavilion for the History of the Waterfront in Union Pier Park

Restoration of the natural shoreline

Restoration of historic public landing



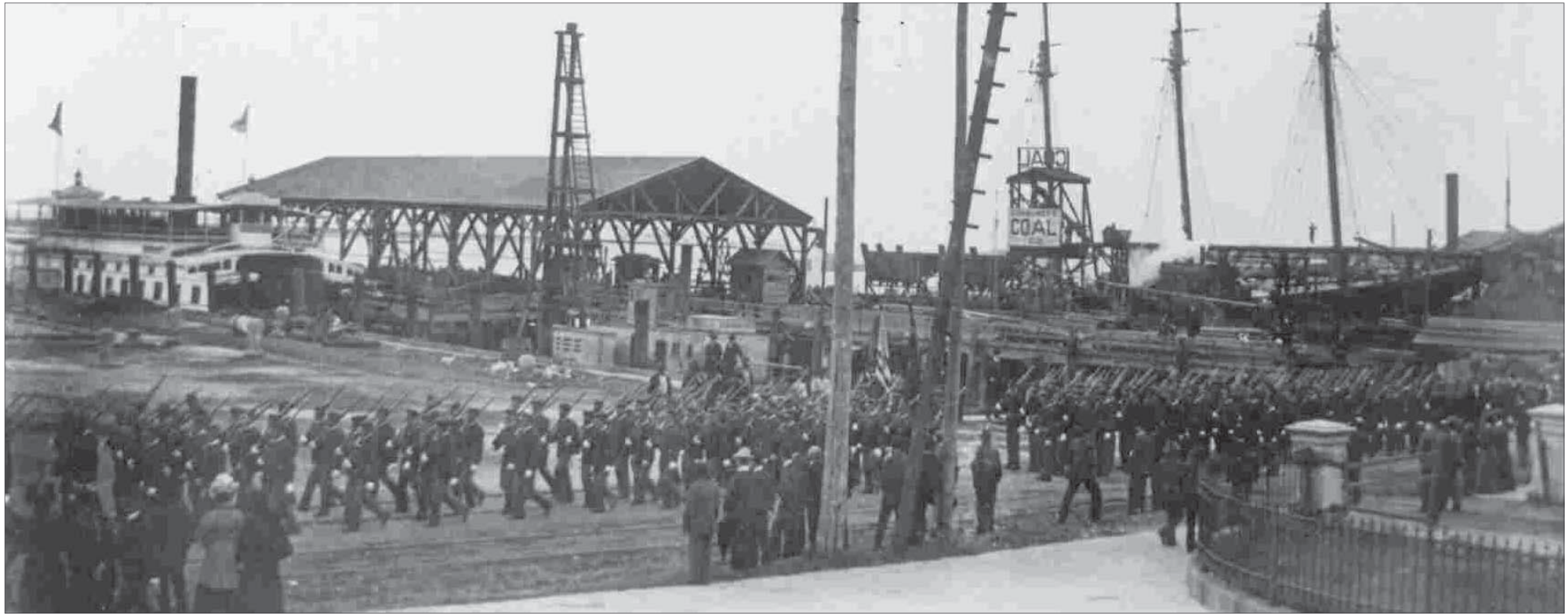
SPECIAL INITIATIVES

RESTORATION OF HISTORIC PUBLIC LANDING

Seen as Charleston's front door from the water, the Custom House dominated the Charleston Cooper River waterfront and its skyline since construction of the federal building was completed in 1879. At that time, the Cooper River flowed past the city and could be accessed from a public boat landing. Pier 1 and Pier 2 are stacked granite partially obscured today by a State Ports Authority parking lot.

Soldiers paraded by the wharf, President Franklin Roosevelt addressed a crowd from Union Pier, torpedo boats and rum runners tied up at the docks, goods were shipped, and African-American water men brought a fleet of ships (the Mosquito Fleet) in daily with the day's catch.

Waterfront view of Charleston and the Custom House



South Carolina Volunteer Artillery prepares for Spanish-American War circa 1898

Pier 2 at the Custom House Wharf, early 20th century

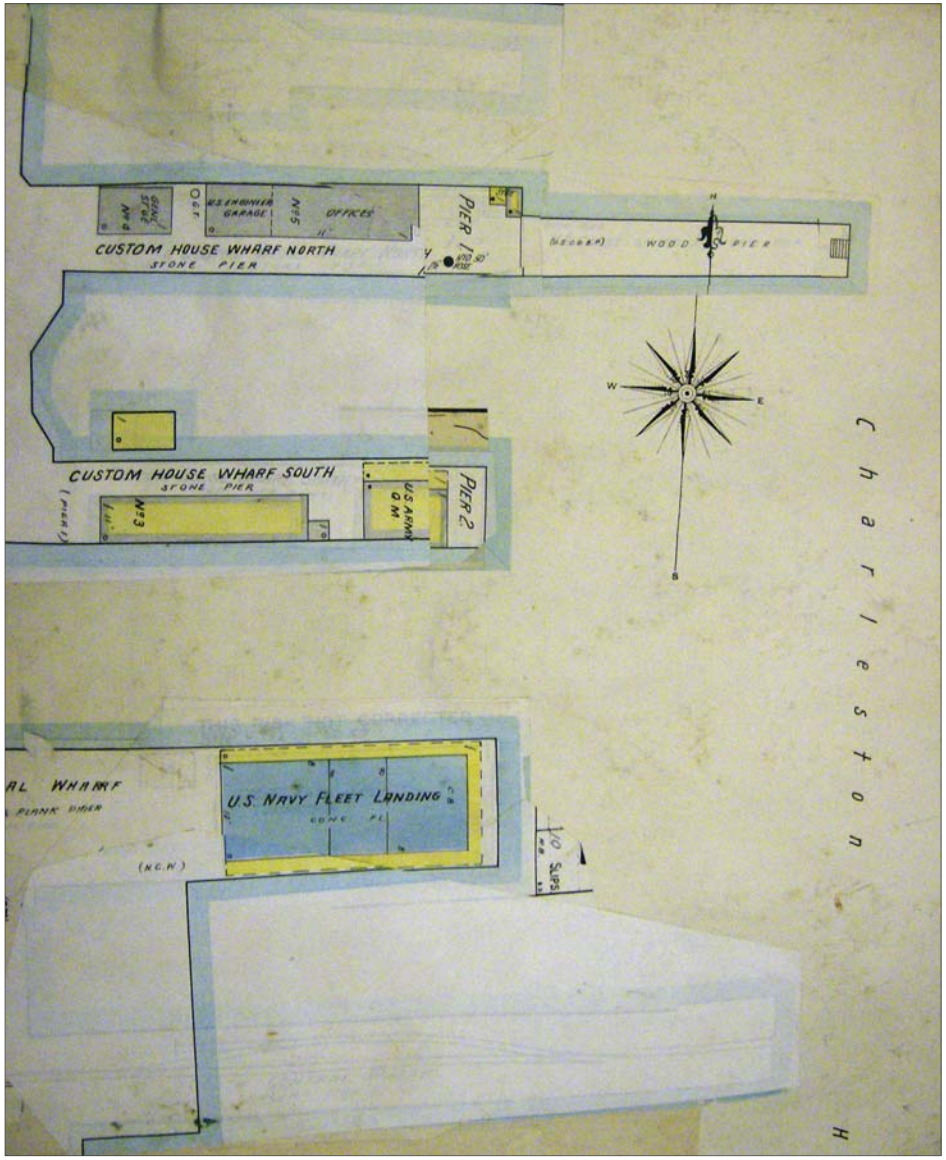
Remaining artifacts of the once vibrant wharf at Pier 1

SPECIAL INITIATIVES

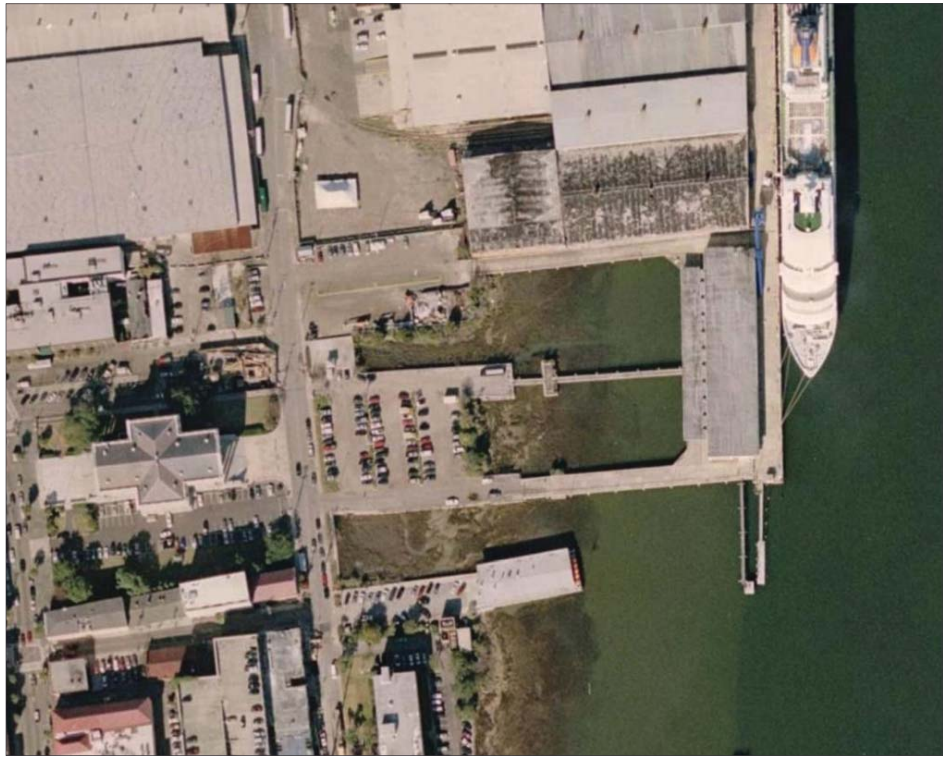
With the removal of the SPA Cruise Terminal from the south end of the State Ports Authority's Union Pier property, an opportunity to redevelop that portion of the site is illustrated in this Concept Plan Report. A key component of the Concept Plan is the restoration of the historic public landing, including the entire granite wharf edge of the landing, Pier 1, and Pier 2

The Public Landing and the Custom House mark the waterfront terminus of Market Street. A restored public landing will provide the community with a public plaza at the foot of the Custom House - a place to gather and look out over the Cooper River. A restored boat landing will provide small craft access at the foot of Market Street and even perhaps foster the advent of a morning fish market.

Seen from the steps of the Custom House or from the water, a restored public landing with a vibrant marsh will provide the postcard view of the city once more.



1902 Sanborn map with updates through 1951



SPA parking lot at the historic public landing

Proposed public plaza and access at Custom House Wharf - an illustrative concept

Present day view from the steps of the Custom House

Early 20th century view from the steps of the Custom House

SPECIAL INITIATIVES

RESTORATION OF NATURAL SHORELINE

The Union Pier Concept Plan recommends the removal and relocation of a variety of in-water structures, primarily pier decking and pilings, resulting in great opportunity for the reclamation of natural shoreline habitats. Habitats that may be restored along the waterfront include salt marshes, oyster beds, tidal pool areas, mudflats, upland marginal habitat, and other estuarine habitats typical of the South Carolina coast. This section details opportunities that the deck removal presents from a natural restoration perspective and identifies strategies that should influence future planning.

History of Charleston Marshes

Large swaths of salt marsh once fringed the shores of Charleston Harbor and the Cooper River; however, many of these wetlands were filled for the developing city of Charleston and its waterfront activities. Today, patches of salt marsh still exist, including along the shore of beautiful Waterfront Park, but most have been encroached upon by centuries of development and the sedimentation and runoff that accompany such expansion. The Union Pier site historically supported shipping and industrial uses that required extensive dredging and pier construction, severely limiting the existence of marsh at the site. However, by the middle of the 20th century, shipping operations had declined. In 1942, the Santee River was dammed and diverted into the Cooper River as part of a hydroelectric project. The high water flows of the combined rivers increased sedimentation by up to eighteen times in Charleston Harbor. Most of the marsh seen on site today may have accreted following the diversion of the Santee. In 1985, the Army Corps rediverted the majority of the flow back into the Santee River, significantly reducing discharge into Charleston Harbor.

Today, a patchwork of small isolated marshes and extensive mudflats exists behind, between, and within the bulkheads, pilings, and deck structures of the site. These small habitats are degraded due to stormwater runoff and poor tidal flushing, which causes inconsistent growth and mudflats where tidal marsh should be. However, their presence is a reminder of nature's ability to regenerate; an encouraging indication

Salt marsh with boardwalk.

Salt-tolerant vegetation like seaside goldenrod (*Solidago sempervirens*) and groundsel (*Baccharis halimifolia*) thrive in the marginal area between salt marsh and upland.

Oysters colonizing a toppled piling.

that, with some human reparation, salt marsh and other waterfront ecosystems can once again thrive on this site.

Benefits of Intertidal Habitat

Intertidal habitats, particularly salt marshes, bring a variety of benefits to the South Carolina coast. In general, salt marshes provide many functions, including:

- Providing wildlife, fish, and shellfish breeding and foraging habitat;
- Intercepting and processing sediment and debris from the land and water;
- Acting to limit and reduce coastal erosion;
- Acting as nitrogen and carbon sinks, thereby reducing pollution and slowing the effects of global warming; and
- Providing floodwater storage.

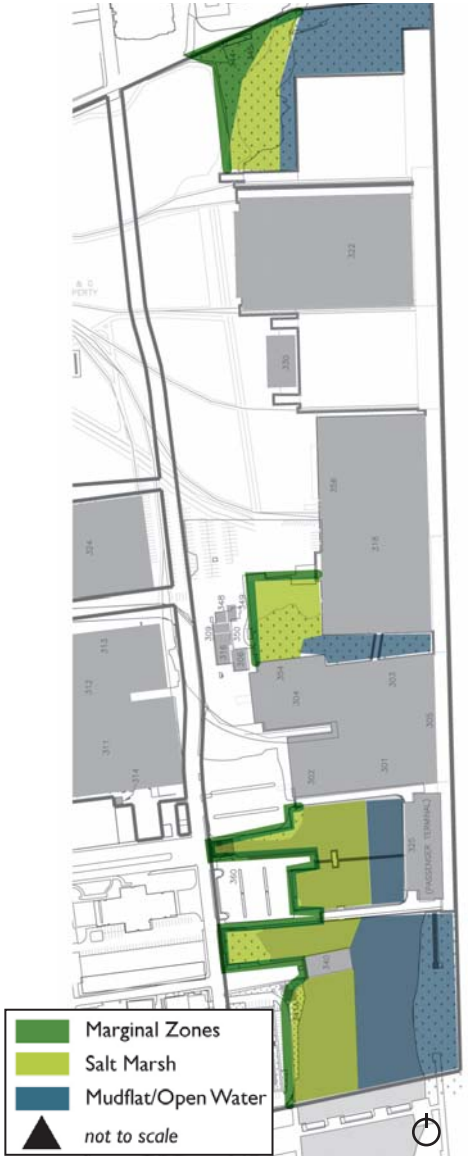
Structurally, marshes stabilize substrate against erosion and stimulate further sedimentation, helping to balance sea level rise. Aesthetically, marshes are beautiful habitat and enhance the urban environment of Charleston. They also provide excellent educational opportunities, especially on the Union Pier site, where existing pier structures may be used creatively to improve public interaction with intertidal habitat (discussed below).

Intertidal ecosystems support an important variety of aquatic and terrestrial flora and fauna. Aquatic estuarine habitats support oysters and other shellfish. These animals are filter feeders, capable of improving the water quality of harbor systems when populations are sufficiently large. Other intertidal organisms, like crabs, eat marsh detritus and are preyed upon by shorebirds, fish, and other animals. Estuaries are critical spawning habitat for many fish that are important to local commercial fisheries.

Ribbed mussels among the roots of salt marsh cordgrass

Sand fiddler crabs rely on salt marsh habitat (Credit: Ianaré Sévi)

Seaside sparrows, found only in salt marsh grasses in the coastal plain (Credit: Brian Small)



Existing conditions map showing ecological zones of opportunity. A patchwork of salt marsh habitats exists between the piers, but it is degraded by stormwater runoff and poor tidal flushing.

Marginal zones bridge the space between salt marsh and upland. Currently, these zones are minimal to nonexistent on the site, displaced by riprap or vertical walls or pier edges. This allows stormwater runoff to flow directly into the existing salt marsh.

Large expanses of mudflat are revealed between low and mean tides.

Degraded existing salt marsh

Riprap in the marginal zone allows stormwater to run directly into marsh

Shoreline Restoration

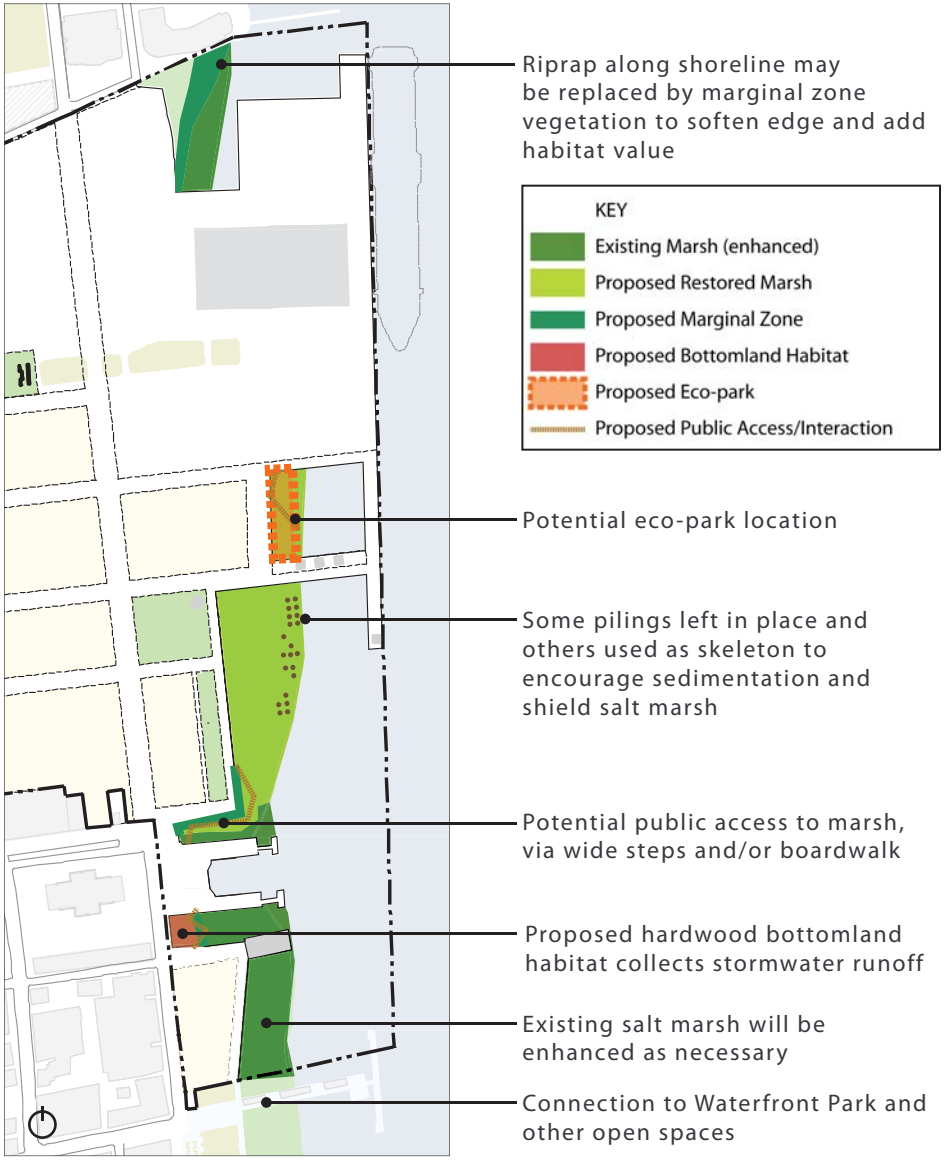
This project is an opportunity to reconnect Charleston's public to the natural waterfront by enhancing, protecting, and restoring the natural shoreline where appropriate and viable. To do this, several ecological strategies may be pursued, each consistent with the goal to create a self-sustaining restoration.

For example, in existing salt marsh areas with poor flushing, strategic removal of in-water structures and construction of naturalistic tidal channels may help restore hydrological connections. Using the pilings below grade as a skeleton to trap and support sediment may help enable the placement of substrate for planting native salt marsh vegetation. By leaving some pilings in place, we may encourage further sedimentation and ultimately protect marshes from wave energy.

Revealed shorelines previously covered by decking can be regraded to the desired elevation between mean and high tide, and then planted with native marsh vegetation (such as salt marsh cordgrass). Since established vegetation slows tidal flow locally, the restoration of a marsh helps to increase deposition of fine-grained sediment, expanding the marsh over time.

The grade in certain areas may be raised through relocation or addition of sediment to encourage cordgrass to grow on large expanses of mudflat currently located below mean tide. This regraded substrate may be held in place by pilings, bulkheads, berms or a variety of bio-engineered structures that would become less critical over time (see sketch on opposite page). Coir logs seeded with oysters may be used, providing living erosion control. Oysters and other shellfish are already found on existing pilings in significant numbers; beyond coir logs and pilings, additional habitat may be provided through strategic placement of debris, artificial reefs, or other structures.

Stormwater Best Management Practices (BMPs) may be used to protect restored salt marshes from runoff from parking lots and other impervious surfaces. Rainwater from these surfaces may contain suspended sediment with unwanted constituents.

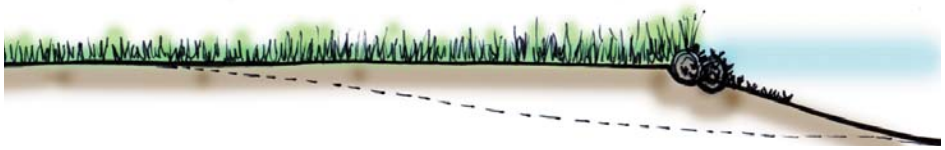


Illustrative conceptual ecological restoration plan

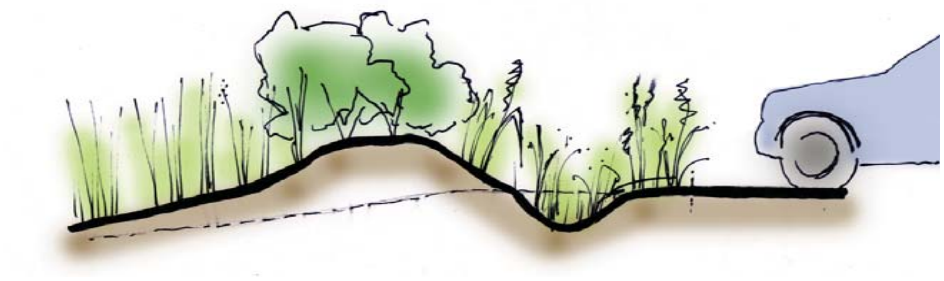
Vegetated bioswales planted with hardy native species, for example, can collect runoff and potentially improve water quality before water is released (see bottom sketch, below). Freshwater runoff may also be diverted into an upland area so as to create a pocket of bottomland hardwood forest reminiscent of South Carolina interior habitats. These plantings would likely attract birds and could themselves become educational sanctuaries.

Salt-tolerant shrubs and herbaceous species may be planted as a buffer in the marginal zone between salt marsh and upland; this creates a softer edge than stone rip-rap, reducing wave energy and erosion potential. The buffer also adds habitat value for birds and other wildlife, and protects marsh from direct upland stormwater runoff.

Finally, opportunities to connect to open spaces outside of the Union Pier site should be explored. For example, ensuring a seamless connection with Waterfront Park to the south will encourage local movement of wildlife species through restored habitat. Other local environmental and community groups should be involved as necessary.



Regraded substrate extends marsh vegetation and is held in place using bio-engineering techniques, such as oyster-seeded coir logs (shown)

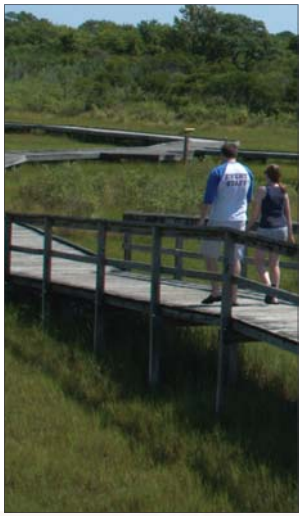


Vegetated bioswales capture and treat stormwater runoff from parking lots

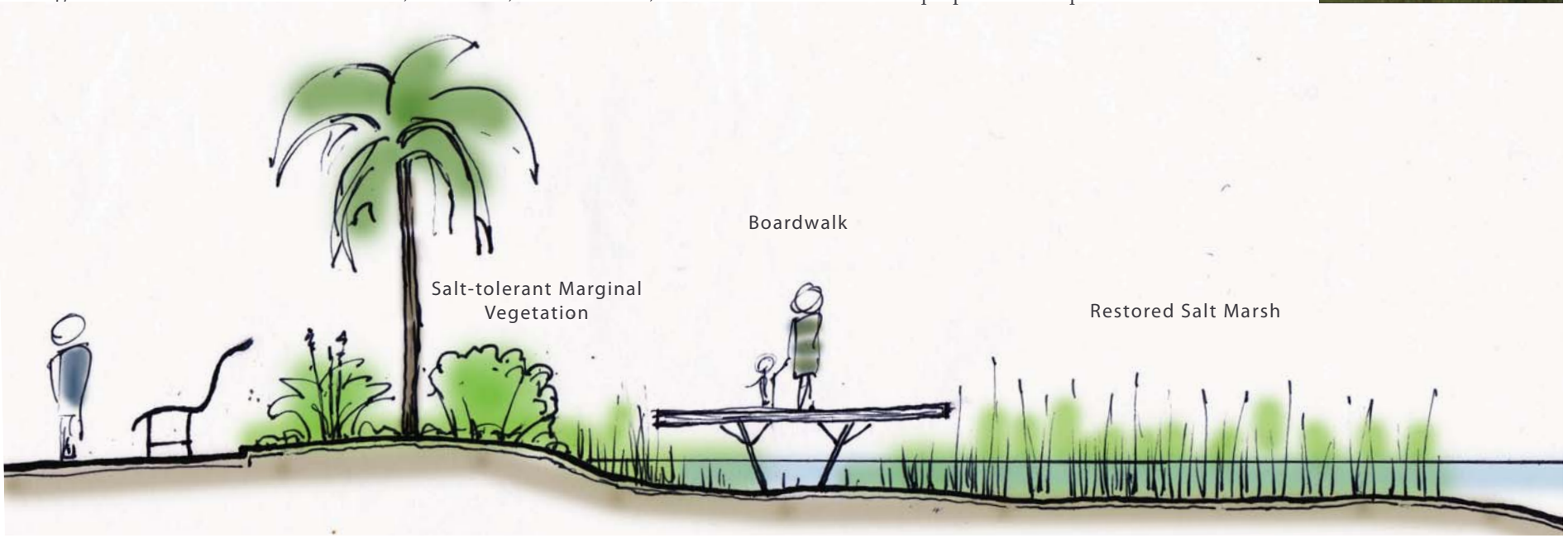
Bringing the Shoreline to Visitors

Opportunities for public interaction exist throughout the restored shoreline area. For example, boardwalks raised above the marsh may carry pedestrians though the thriving intertidal community (as shown in the sketch below); signage and place design may call attention to wildlife and natural patterns. Outlooks with good views of the restored marsh and other shore habitats can give visitors the chance to observe birds such as egrets, marsh wrens, and perhaps even seaside sparrows, which are found only in salt marsh grasses like cordgrass.

An "eco-park" that highlights, emphasizes, and celebrates South Carolina waterfront ecology, constructed on and within the pier decking, may provide an formal ecological experience through the creative integration of open water, intertidal, and upland habitat. Interactive exhibits, signage, and design may be used to highlight the ecological and aesthetic benefits of shellfish, salt marsh, salt shrubland, and other waterfront communities. For example, a series of steps down into marsh habitat could lead the public into the ecological processes occurring on the waterfront. The steps could lead to open water or even to a small tidal pool area complete with a "touch tank" for children. Images on this page and the next provide sketches of these concepts.



The Concept Plan proposes significant changes to the Charleston waterfront by removal of the structures that impeded natural processes in the harbor -- specifically the natural development and maintenance of salt marshes and other South Carolina aquatic habitats. The proposed concepts detailed with this



Illustrative section showing transition through marginal zone at shoreline

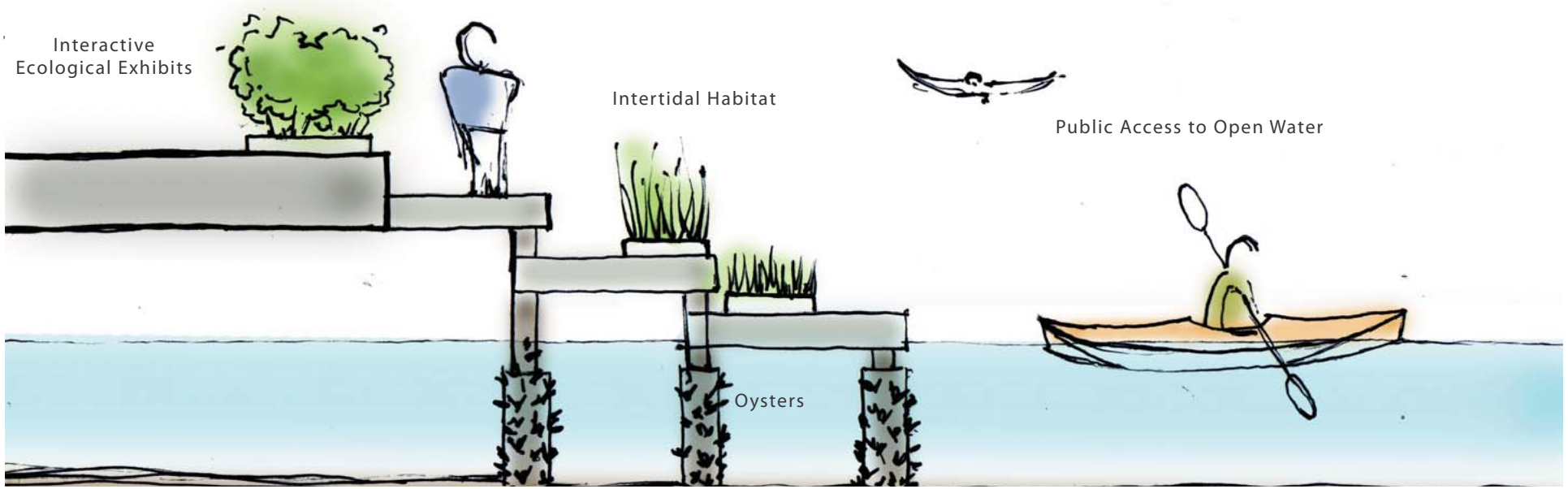
document allow us to explore restoring large sections of marsh, upland and marginal habitat, tide pools, and other important estuary features. There are several concepts that should be incorporated into the ecological components of the Concept Plan including:

- Restoration of a variety of viable habitats and connections to other open space;
- Policy of self-sustainability of ecosystems;
- No further net loss of aquatic or wetland habitat as a result of new development without compensation through mitigation;
- Public access to the restored habitats;
- Educational opportunities at the restoration sites;
- Incorporation of local environmental organizations in the planning and design of these areas; and
- Development of an eco-park.

Eco-parks seek to connect visitors to their environment through creative design strategies. The landscape of an eco-park is designed to showcase ecology through carefully chosen native plants and landforms evocative of local ecosystems. Educational signage is often integrated into the design, as well as interactive exhibits that allow the public to explore natural surroundings.

At the Union Pier site, access to the marsh may be provided by boardwalk paths or wide steps leading down to the shore. Tidepools (right) or intertidal habitat (below) could be built into existing pier decks. By reusing industrial structures, the eco-park may also highlight the cultural history of the site.

Finally, active public access to open water (for example, kayaking) may also be included within the eco-park.



Illustrative section showing conceptual "eco-park" at pier's edge

SPECIAL INITIATIVES

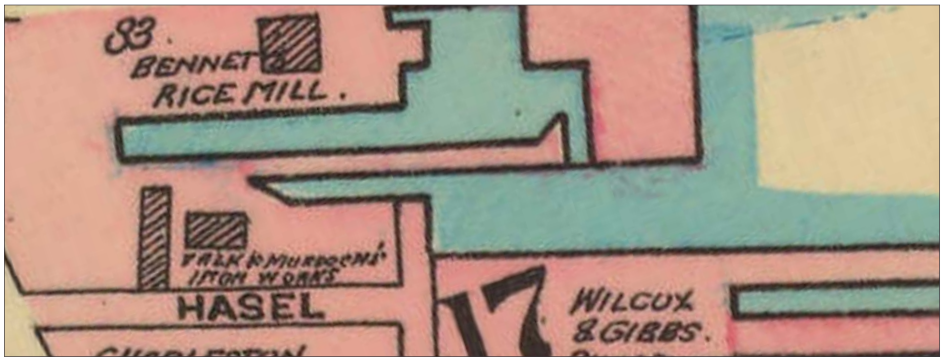
RESTORATION OF BENNETT'S RICE MILL & CREATION OF RICE MILL PARK

The area now commonly referred to as Union Pier was once a collection and assortment of many private piers of varying lengths and widths. Private ownership of the shipyards, wharves, and piers began at Union Pier in the 18th century and continued until the city created a municipal port authority in 1934. The ownership and names of the various wharves and docks included Robert Pinckney's Union Wharves, Marsh's Wharf where the "Rice Bird" was built and sailed in 1809, Deveaux, Robb, McLaren, Patten's Wharf, and Bennett's Wharf which occupied a portion in the northern end of Union Pier.

Names are all that remain but for the remnant facade of Bennett's Rice Mill which sat to the west of a constructed mill pond and between the long piers and slips which ran perpendicular to the river. Bennett's Rice Mill was constructed in 1844 though the area's commercial rice production had already begun to slow. An artifact of an earlier time, the Concept Plan celebrates the history of the working waterfront at Union Pier with a park setting for the Rice Mill facade. Restored and safe, the facade provides a gateway to and from the water and the adjacent Cruise Terminal. The park setting could provide opportunities for outdoor performances with the Rice Mill facade as a scenic backdrop.

Present day photograph of the Rice Mill Facade

Structural support at rear of facade



1884 Sanborn detail

V. COMMUNITY OUTREACH

INTRODUCTION

COMPONENTS

INTRODUCTION

The Union Pier Cruise Terminal Concept Plan process provided an opportunity for the South Carolina State Ports Authority to achieve two principle goals:

1. Generate community involvement and support for the Concept Plan for Union Pier Cruise Terminal
2. Enhance the reputation of the Ports Authority within the community not only in service of this initiative, but also to build positive public good will for the future.

Community outreach would be critical to fostering open, constructive dialogue, actively engaging the community, and building support for the planning process and eventual development. This involved three main principles:

- *Transparency*
  Be open, transparent, and forthcoming throughout the process.
- *Collaboration*
  Talk with people and listen. Work collaboratively with individuals and constituent groups to create a plan that meets their needs as well as the Port's.
- *Iteration*
  Maintain an on-going 'conversation' with the community. Not a one-shot charrette, but rather a series of iterative opportunities for community input and engagement.

ACCOMPLISHMENTS

The Community Outreach initiative of the Union Pier Cruise Terminal Concept Plan included:

- Three major public meetings, two of which included extensive break-out sessions
- Upwards of 100 meetings with individuals and specific constituencies
- Major participation in Historic Charleston Foundation's 'Delicate Balance' Forum
- Outbound communications of status and progress through Website and more than 12,000 emails and letters
- Regular contact with the media, including two extensive media visits
- Three op-ed pieces in the Post and Courier

As a result, consistently favorable anecdotal feedback praised the Port for its process, its proactive and ongoing public engagement, and the Concept Plan itself.

Concept Plan Meeting - February 9, 2010

The Community Outreach effort consisted of a number of components, and included:

- Communications Plan
- Strategic Messaging
- Communication Materials
  - Website
  - Collateral Materials
  - Public Meetings
  - Meetings with Individuals and Specific Constituencies
  - Letters & Emails
  - Op-Eds
  - News Releases and Media Visits

COMMUNICATIONS PLAN

The Community Outreach plan was solidly grounded in the principles of transparency, collaboration, and iteration.

It was punctuated with a series of public meetings – from kick-off to conclusion – that would not only inform the community but also provide on-going opportunities for community input.

These plenary meetings were complemented with an on-going series of meetings with individuals and key constituent groups, including neighbors, preservation and environmental organizations, Market Street businesses, visitor industry leadership, general business leadership, Port-related businesses, etc.

Ongoing feedback was encouraged by the availability of a special Website, regularly distributed comment cards, and ample question-and-answer opportunities at every meeting.

On-going communications were implemented via personalized letters and e-mails.

Media engagement was assured by including the media in all public meetings, holding a series of special briefings with the media, and providing the media with news releases and op-ed pieces.

UNION PIER CRUISE TERMINAL

South Carolina Ports

GOALS

- Create a financially viable plan for a new cruise terminal that is attractive and in keeping with the character of historic Charleston
- Comply with today's enhanced cruise security requirements
- Mitigate impacts on existing infrastructure and traffic
- Identify additional uses for the Union Pier property that bring enjoyment to Charlestonians and enhance the local economy
- Increase public access to Charleston's historic waterfront

STRATEGIC MESSAGING

Strategic messaging is the heart of an effective communications plan. Our first step was to articulate the Port's goals in a way that would resonate most powerfully with the community.

The Concept Plan process was initially focused solely on the cruise terminal facilities. It was important for our messaging to include distinct benefits to the community.

For example, with an attractive new terminal, in keeping with the character of historic Charleston, cruise visitors would be more likely to appreciate and respect the Peninsula's neighborhoods. And, if the plan successfully addresses the traffic challenges currently associated with cruise ships in Charleston, that too would be a big plus for the community.

Furthermore, increasing public access to Charleston's historic waterfront and developing additional uses for the Union Pier property (heretofore closed off to the community) would also be very favorably received.

The project's goals were articulated as follows:

- Create a financially viable plan for a new cruise terminal that is attractive and in keeping with the character of historic Charleston.
- Comply with today's enhanced cruise security requirements.
- Mitigate impacts on existing infrastructure and traffic.
- Develop additional uses for the Union Pier property that bring enjoyment to Charlestonians and enhance the local economy.
- Increase public access to Charleston's historic waterfront.

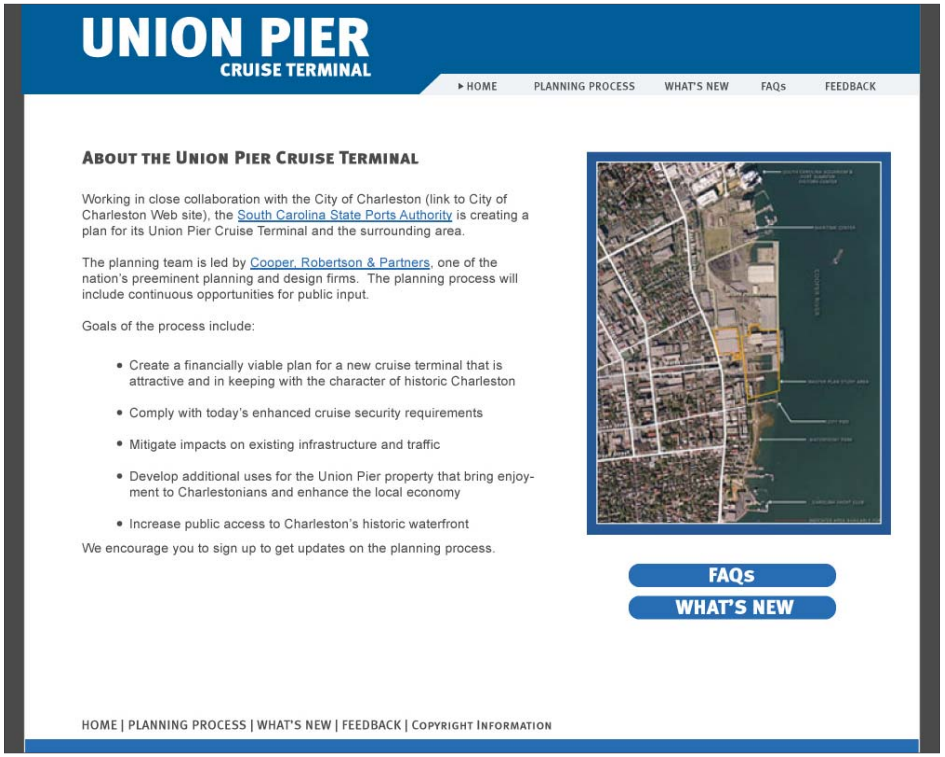
All messaging was tied back to these goals. As the process evolved, it became clear that the community wanted the Port to consider a larger context: looking beyond the current cruise terminal facilities and also considering other proposed developments on the Peninsula. But the goals never change, and – in fact – they fundamentally mirrored the goals expressed by the community throughout the planning process.



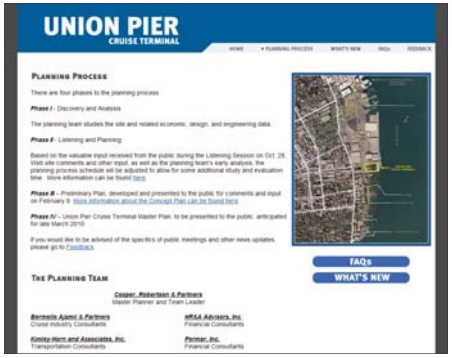

Union Pier Kick-off Meeting - October 8, 2009

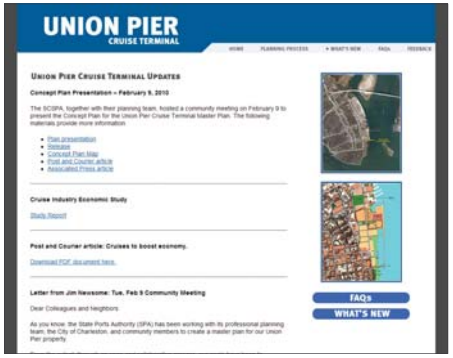
WEBSITE

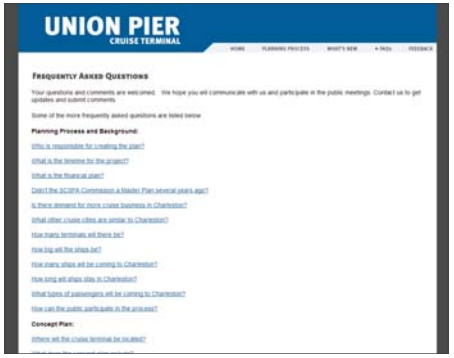
A special Website – www.UnionPierPlan.com – was created and launched the day of the Kick-Off Community Meeting. The Website provided information on the project and process, and it encouraged site visitors to submit comments and questions. The site was regularly updated throughout the process.

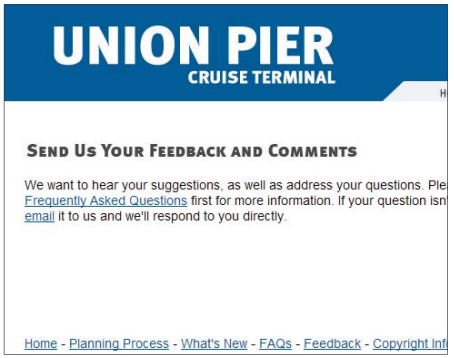


Home page for www.UnionPierPlan.com









Pages from www.UnionPierPlan.com

PUBLIC MEETINGS

There were three major public meetings. Each meeting was held at the current Passenger Terminal, so attendees could see both the need and the possibilities!

Kick-Off Meeting – October 8, 2009

The Kick-Off Meeting announced the project, its goals, and timetable. And the community was encouraged to become involved throughout the process. Participants included Jim Newsome, Mayor Riley, and Jaque Robertson. Attendees included members of the planning team, who were identified and available for discussions following the meeting.

The public was invited, and invitations were sent to the entire database, including media. Meetings with individual constituent groups were held on the kick-off day and following days.

Listening Session – October 28, 2009

The Listening Session set the parameters for the project and then included a series of breakout sessions at which community members could express their interests and questions relating to the project and process. Participants included Jim Newsome, Jaque Robertson, and members of the planning team.

The public was invited, and invitations were sent to the entire database, including media.

Concept Plan Meeting – February 9, 2010

At this public meeting, the Concept Plan was presented, followed by a series of breakout sessions during which community members could discuss it with planning team members. Participants included Jim Newsome, Mayor Riley, Jaque Robertson, and members of the planning team.

The public was invited, and invitations were sent to the entire database, including media. Meetings with individual constituencies preceded the public concept meeting.

At each public meeting, comment cards were distributed so that community members could send in additional comments or questions. Also, notes and summaries of all meetings were posted on the Website.

More than 1,100 members of the public attended meetings and participated in the process.

Kick-Off Meeting – October 8, 2009

Listening Session – October 28, 2009

Listening Session – October 28, 2009

Concept Plan Meeting – February 9, 2010

MATERIALS

A basic brochure was created and updated to provide a brief description of the project, process, and planning team. It included maps and encouraged people to get more information on the Website. Presentation boards were produced for the various public meetings.

CONSTITUENT MEETINGS

Upwards of 100 meetings with individuals and special constituencies were held throughout the process. Typically there were multiple meetings with each constituency at different stages of the process.

Constituent groups included Historic Charleston Foundation, Preservation Society of Charleston, Coastal Conservation League, The Committee to Save the City, Historic Ansonborough Association, Gadsden Wharf, the Peninsula Consortium, Charlestowne Neighborhood Association, Eastside Neighborhood, French Quarter Neighborhood, Garden District, Harleston Neighborhood Association, Radcliffborough Neighborhood Association, Market Preservation Trust, Travel Industry Leadership, King Street Merchants, Port-related businesses, Charleston Metro Chamber of Commerce, and Charleston Regional Development Alliance.

Historic Charleston Foundation's "Delicate Balance" Forum - January 8, 2010

E-MAILS & LETTERS

On a regular basis, e-mails and letters were sent to individuals on the database. These communications included updates and invitations to forthcoming meetings.
Below is a sample e-mail/letter. Eight e-mails and letters were sent to more than 12,000 recipients.

South Carolina State **PORTS AUTHORITY**

P.O. Box 22287
Charleston, S.C. 29413-2287 USA
(843) 723-8651
Fax: (843) 577-8191

Dear Colleagues and Neighbors:

On October 8, the S.C. State Ports Authority (SPA) began its Union Pier Cruise Terminal planning effort with a public Kickoff Event at the Passenger Terminal. As you may know, the project involves creating a plan for the Union Pier Cruise Terminal and the surrounding property – a great opportunity to consider the potential for this underused waterfront area.

Through an open, collaborative process, we aim to:

- *Create a financially viable Union Pier Cruise Terminal plan that reflects the character and quality of historic Charleston*
- *Comply with today's enhanced cruise security requirements*
- *Identify additional uses of the property for the enjoyment of Charlestonians and betterment of the economy*
- *Mitigate impacts on existing infrastructure such as traffic*
- *Provide more access to the waterfront.*

Our next step is a public "Listening Session" on Wednesday, October 28 at 7 p.m. at the Exhibition Hall at Gaillard Auditorium. During that time, you will be able to share suggestions and ask questions. Your input will inform our planning process and lead to a preliminary plan to be shared in mid-December.

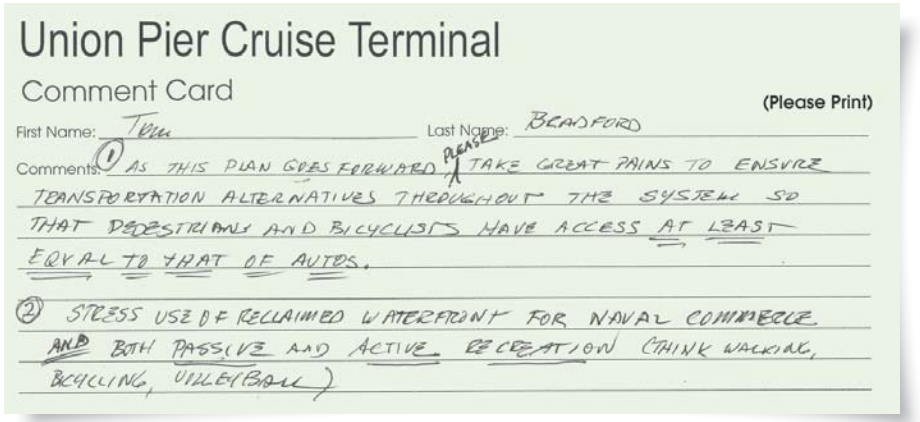
You can also visit www.UnionPierPlan.com to learn about the planning process, the planning team, and the most up-to-date info on the project.

We encourage your participation throughout the process and look forward to seeing you October 28.

Regards,

Jim Newsome

SAMPLE COMMUNITY FEEDBACK



Union Pier Cruise Terminal

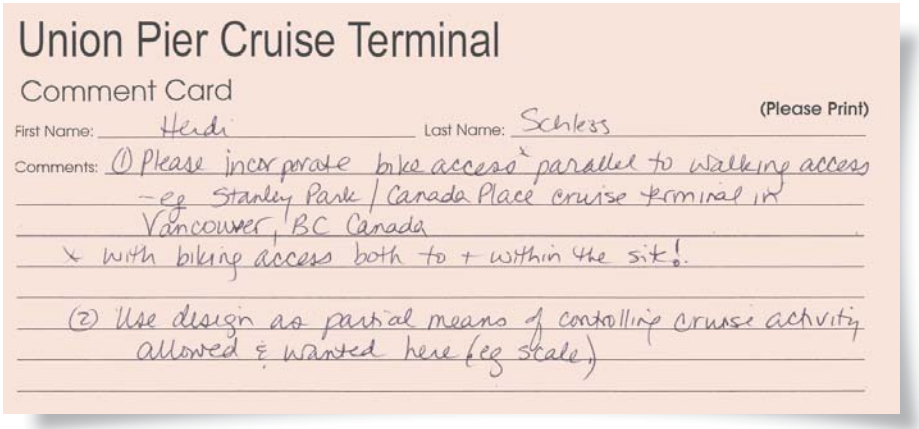
Comment Card

(Please Print)

First Name: Jim Last Name: BRADFORD

Comments: ① AS THIS PLAN GOES FORWARD PLEASE TAKE GREAT PAINS TO ENSURE TRANSPORTATION ALTERNATIVES THROUGHOUT THE SYSTEM SO THAT PEDESTRIANS AND BICYCLISTS HAVE ACCESS AT LEAST EQUAL TO THAT OF AUTOS.

② STRESS USE OF RECLAIMED WATERFRONT FOR NAVAL COMMERCE AND BOTH PASSIVE AND ACTIVE RECREATION (THINK WALKING, BICYCLING, VOLLEYBALL)



Union Pier Cruise Terminal

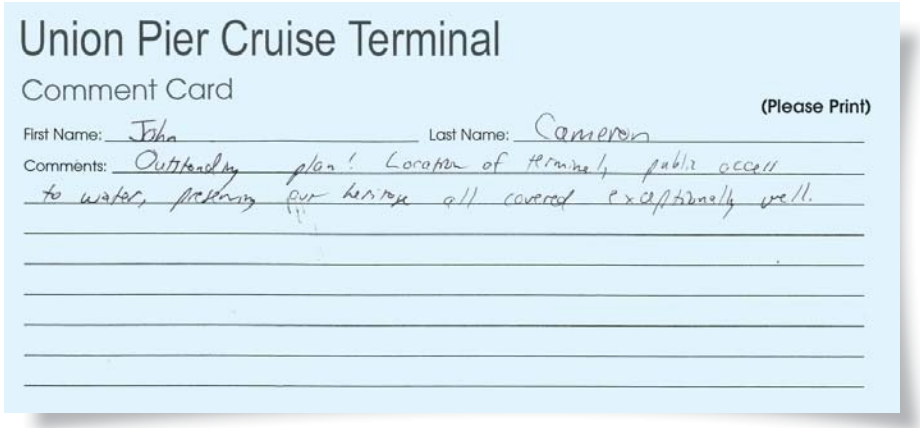
Comment Card

(Please Print)

First Name: Heidi Last Name: Schless

Comments: ① Please incorporate bike access parallel to walking access - eg Stanley Park / Canada Place cruise terminal in Vancouver, BC Canada & with biking access both to + within the site!.

② Use design as partial means of controlling cruise activity allowed & wanted here (eg scale)



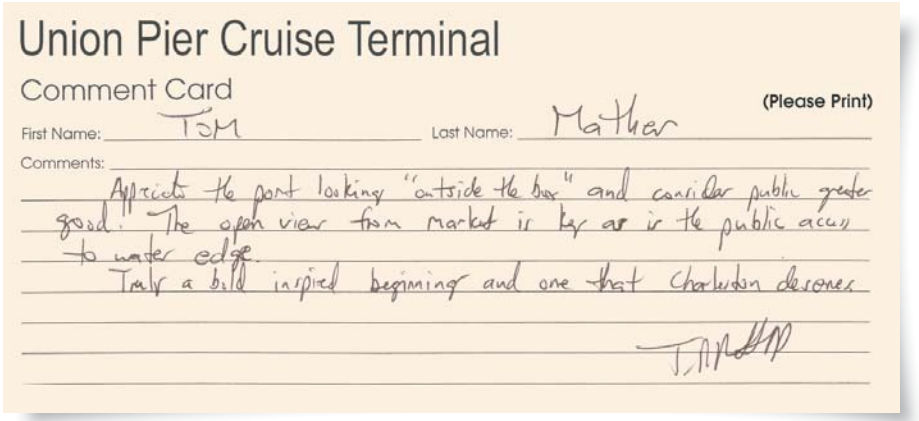
Union Pier Cruise Terminal

Comment Card

(Please Print)

First Name: John Last Name: Cameron

Comments: Outstanding plan! Location of terminal, public access to water, preserving our history all covered exceptionally well.



Union Pier Cruise Terminal

Comment Card

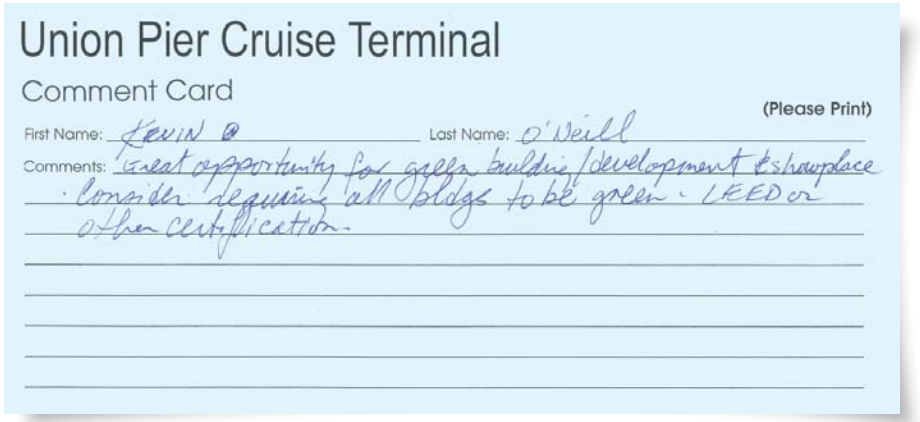
(Please Print)

First Name: TOM Last Name: Mather

Comments: Appreciate the port looking "outside the box" and considering public greater good. The open view from market is key as is the public access to water edge.

Truly a bold inspired beginning and one that Charleston deserves

TJM



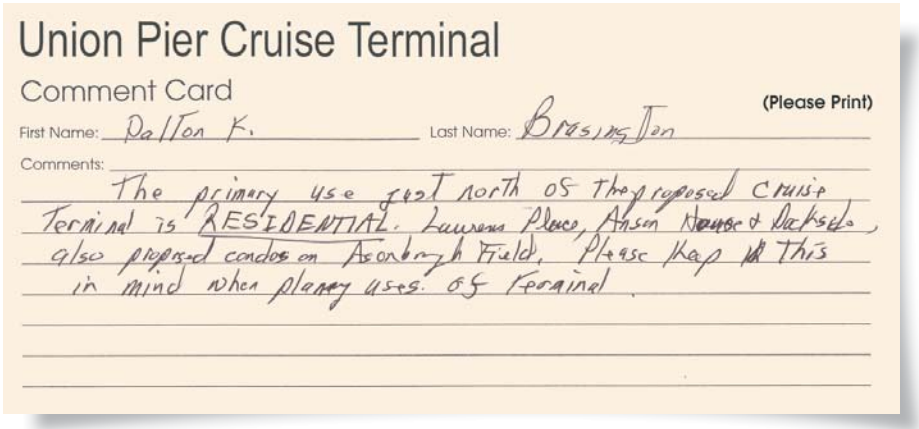
Union Pier Cruise Terminal

Comment Card

(Please Print)

First Name: Kevin @ Last Name: O'Neill

Comments: Great opportunity for green building/development & showplace
· Consider requiring all bldgs to be green - LEED or other certification.



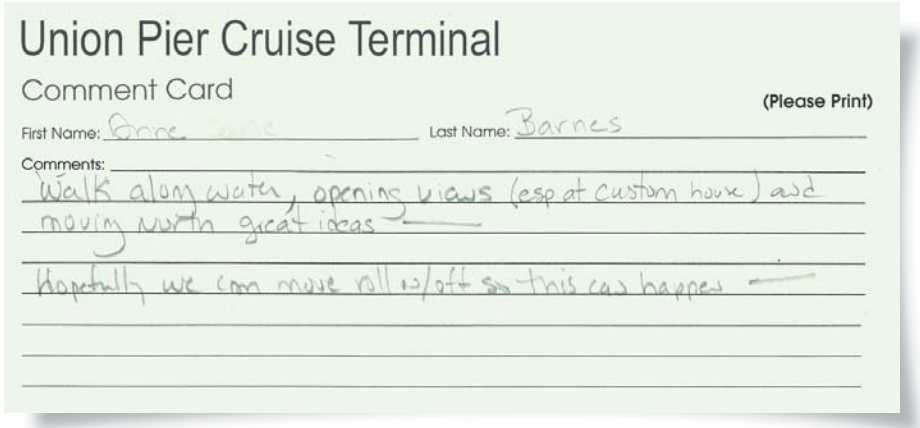
Union Pier Cruise Terminal

Comment Card

(Please Print)

First Name: Dalton K. Last Name: Brasington

Comments: The primary use just north of the proposed Cruise Terminal is RESIDENTIAL. Lawrence Place, Anson House & Parkside, also proposed condos on Asonbergh Field. Please keep this in mind when planning uses of Terminal.



Union Pier Cruise Terminal

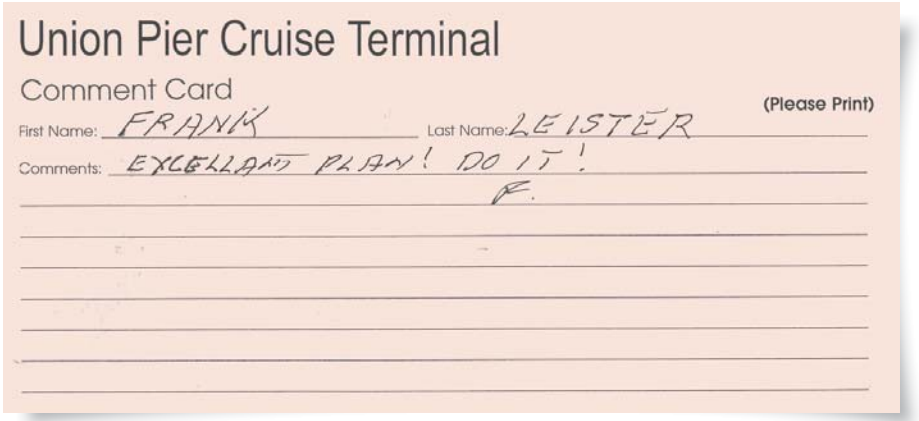
Comment Card

(Please Print)

First Name: Anne Last Name: Barnes

Comments: Walk along water, opening views (esp at custom house) and moving north great ideas

Hopefully we can move rail in/off so this can happen



Union Pier Cruise Terminal

Comment Card

(Please Print)

First Name: FRANK Last Name: LEISTER

Comments: EXCELLENT PLAN! DO IT!

F.

OP-EDS

Three op-eds by Jim Newsome were published by the Post and Courier during the process.

Commentary

Cruise ships can benefit Charleston

The Post and Courier — Commentary — Sunday, February 14, 2010, 11A

Community shares the goals of SPA's Union Pier plan

BY JIM NEWSOME

The Post and Courier — Commentary — Saturday, October 10, 2009, 11A

Port welcomes public input in cruise terminal planning

BY JIM NEWSOME

Communities create better solutions when they work together. That's why I am so optimistic about our planning process for the Union Pier Cruise Terminal and surrounding property.

This week the Ports Authority kicked off the Union Pier Cruise Terminal planning effort, an exciting project that we hope will lead to the revitalization of a waterfront resource that is in need of attention.

Although the existing Passenger Terminal has served our port well for more than 35 years, it requires improvement to meet both new security requirements and the current needs of our port's cruise customers.

Taking a fresh look at the future of the cruise terminal and the area around it offers a great opportunity.

In this planning process, we are working closely with the City of Charleston, with Mayor Joe Riley sharing our keen interest in having the terminal reflect the character of this historic community.

The Ports Authority is committed to public involvement throughout the process. We have a Web site (www.UnionPierPlan.com) where the public is invited to learn more, ask questions and make comments. We will have a "listening session" later in the month, at which time individuals can share their suggestions.

This input will inform our planning process and lead to a preliminary plan that will be reviewed with the public.

Further input will help shape the final plan, scheduled for late January. Through this open, collaborative process, we hope to accomplish the following goals:

- Create a financially viable plan for a new cruise terminal that is attractive and in keeping with the character of historic Charleston;
- Comply with today's enhanced cruise security requirements;
- Mitigate impacts on existing infrastructure and traffic;
- Identify additional uses for the property that bring enjoyment to Charlestonians and enhance the local economy;
- Increase public access to Charleston's historic waterfront.

These are challenging goals. Accomplishing them will require sensitivity and balance. It will also require the highest level of professional planning, and that is why we are especially pleased to have selected Cooper, Robertson & Partners to lead our planning team.

Cooper Robertson has an outstanding reputation throughout the world and knows Charleston well. The firm has demonstrated its understanding of Charleston's unique characteristics through its work on Charleston Waterfront Park, the Charleston Visitor Center, the Charleston Judicial Center and the master plan for Daniel Island. We could not have a better team than the one that Cooper Robertson has assembled. We have the benefit of experts on all relevant disciplines from financial viability to cruise ship industry dynamics.

With the right plan, this property can contribute even more to the Charleston area and state economy, while feeling like it really belongs here.

It can be a place that makes Charlestonians and South Carolinians proud.

That's our goal. We are confident that with the leadership of professional planners and collaboration with the entire community, we will achieve that goal.

Jim Newsome is president and CEO of the South Carolina State Ports Authority.

Op-Eds published in The Post & Courier

NEWS RELEASES & MEDIA VISITS

Four news releases were distributed throughout the five-month process. And there were two rounds of media visits.

News coverage was extensive, and two favorable editorials ran in the Post and Courier.

Charleston, SC - The South Carolina State Ports Authority will study redeveloping a larger area in conjunction with building a new passenger cruise terminal.

The Post and Courier of Charleston reports the authority board decided Tuesday to study the entire 55-acre Union Pier area in Charleston. Originally, the study included only about 18 acres around the existing passenger cruise terminal.

The authority said the larger study resulted from suggestions the public made about the terminal project in recent months.

Officials say a new, modern cruise terminal is needed to handle the growing cruise business in Charleston. Beginning this spring, Carnival Cruise Lines bases its

Articles from various news media outlets

COMMUNITY OUTREACH

NEXT STEPS

Community Outreach is an iterative process. It never ends. Nor should it. The conversation will continue between the Port and the community, as the Concept Plan becomes refined and individual elements become implemented. Throughout this process, the Port has demonstrated its commitment to community engagement and has worked collaboratively with all interested parties. That commitment will continue.

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SOURCES

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Permar Inc.
Great Ecology and Environments
Historic Charleston Foundation, IV.35-38, II.9-10

Birds Eye images: NAVTEQ and Pictometry International Corp

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SOURCES

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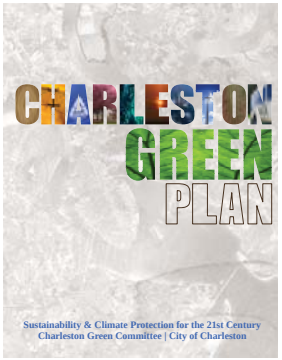
City of Charleston



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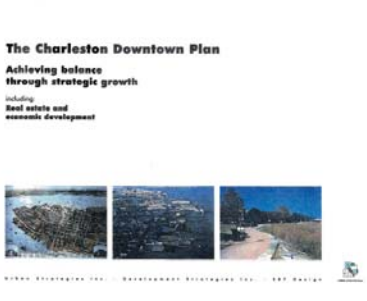
Charleston Green Committee
City of Charleston

Special Area Plan Calhoun Street- East/Cooper River Waterfront - 2009
Chan Krieger Sieniewicz



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Vision | Community | Heritage
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Page & Turnbull